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EXPERIMENTAL STUDY OF THE DYNAMICS OF VARIABLE-LENGTH CABLE SYS--ETC(U)
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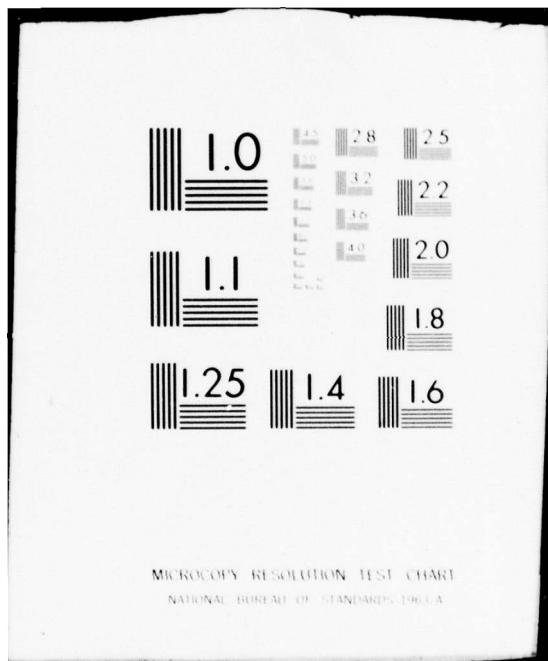
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CIVIL ENGINEERING LABORATORY
Naval Construction Battalion Center
Port Hueneme, California

Sponsored by
NAVAL FACILITIES ENGINEERING COMMAND

EXPERIMENTAL STUDY OF THE DYNAMICS
OF VARIABLE-LENGTH CABLE SYSTEMS,
SUPPLEMENT VOLUME III

April 1979

An Investigation Conducted by

GRADUATE AERONAUTICAL LABORATORIES
CALIFORNIA INSTITUTE OF TECHNOLOGY
Pasadena, California

N68305-76-C-0033

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20. ABSTRACT (Continue on reverse side if necessary and identify by block number) Laboratory experiments on the dynamics of variable length cable systems are described. The prototype situation that these experiments simulate is the deployment of retrieval of a heavy object at sea. A winching mechanism attached to an electro-mechanical oscillator was mounted over a 65 ft. (20 m) deep tank of water. A mass suspended by elastic and inelastic cables was			

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payed-out and reeled-in at specified velocities and accelerations while being oscillated in the vertical plane. Cable tension data are provided as a function of cable direction, length, velocity, acceleration, and the frequency and amplitude of the oscillator.

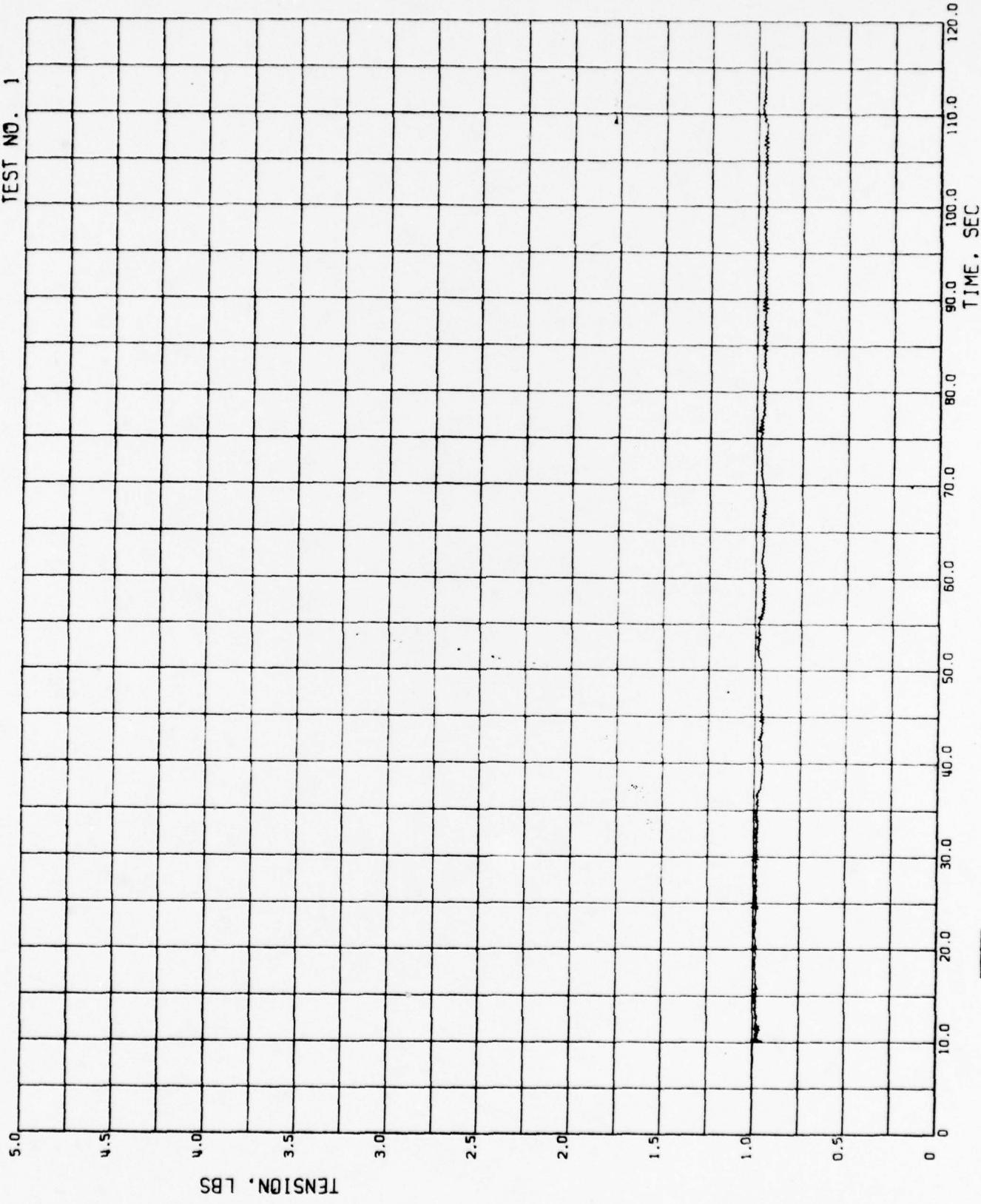
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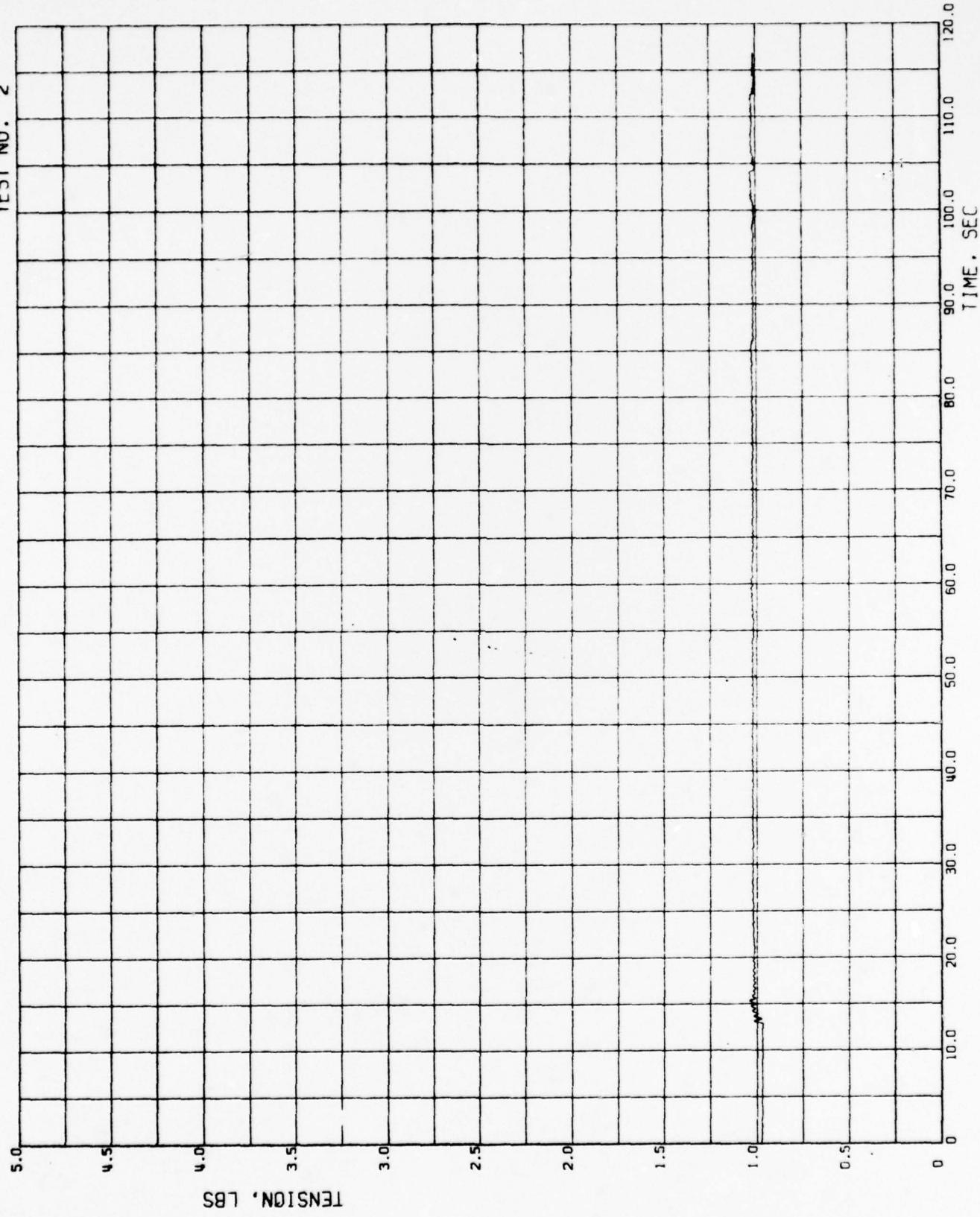
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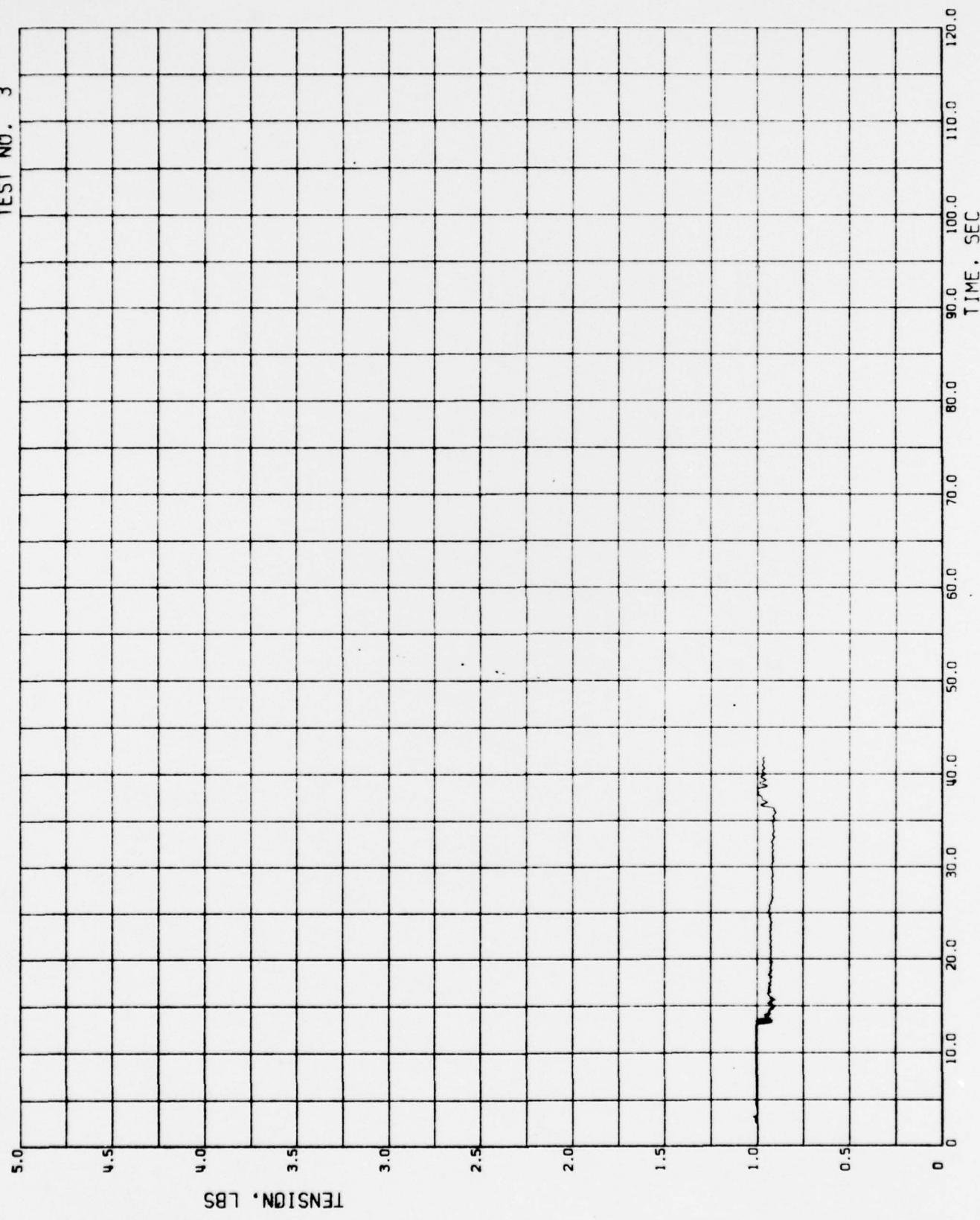
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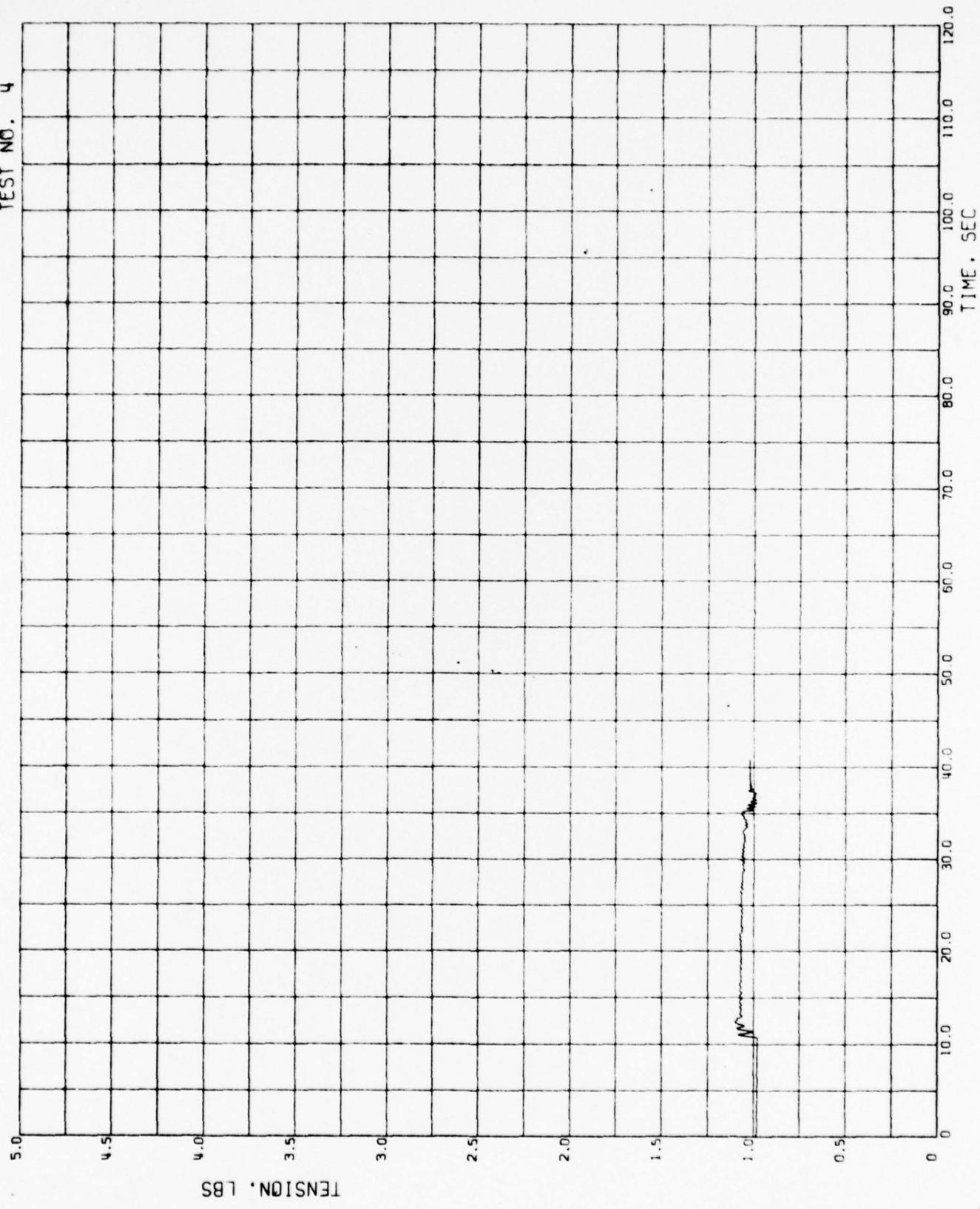
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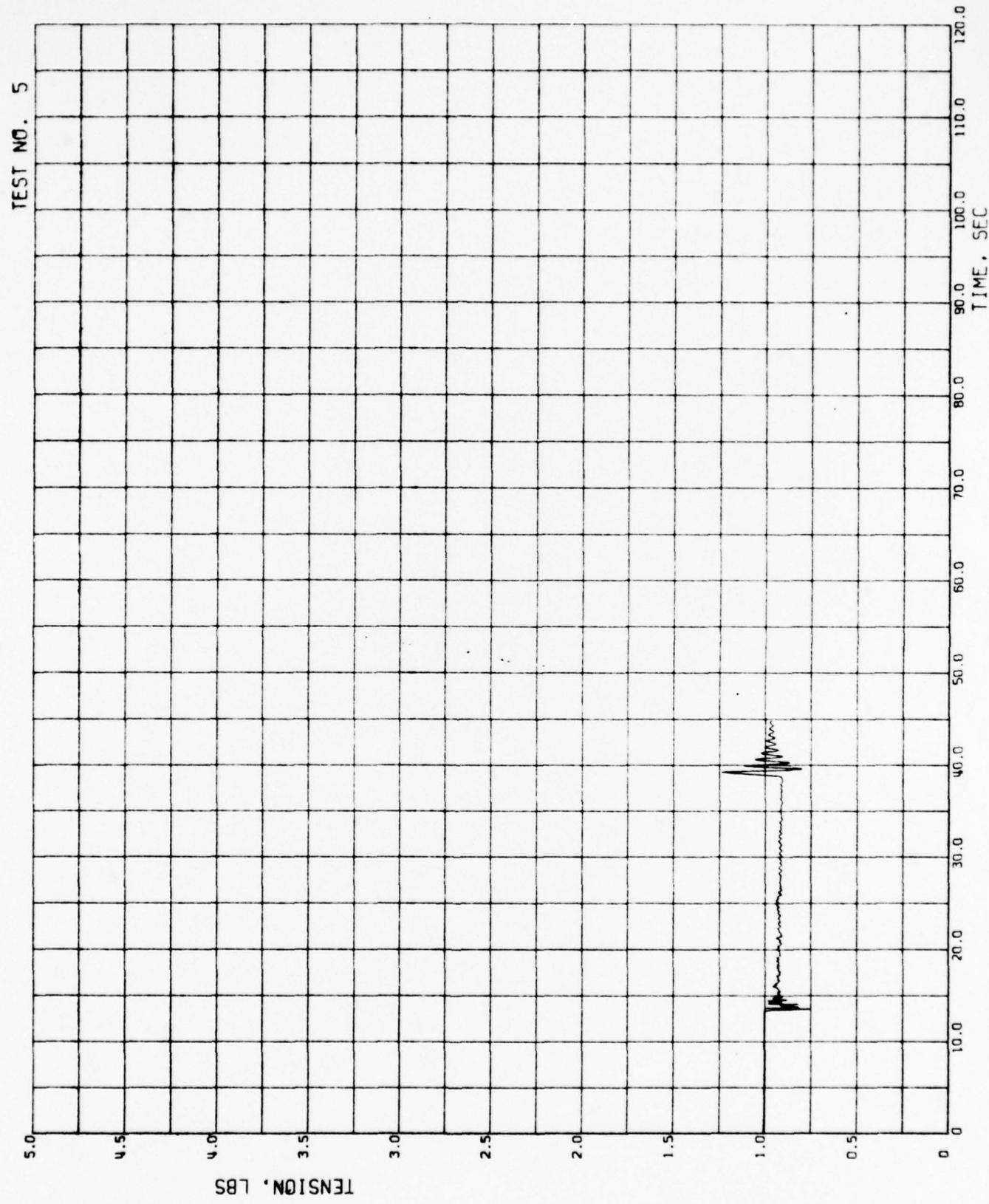


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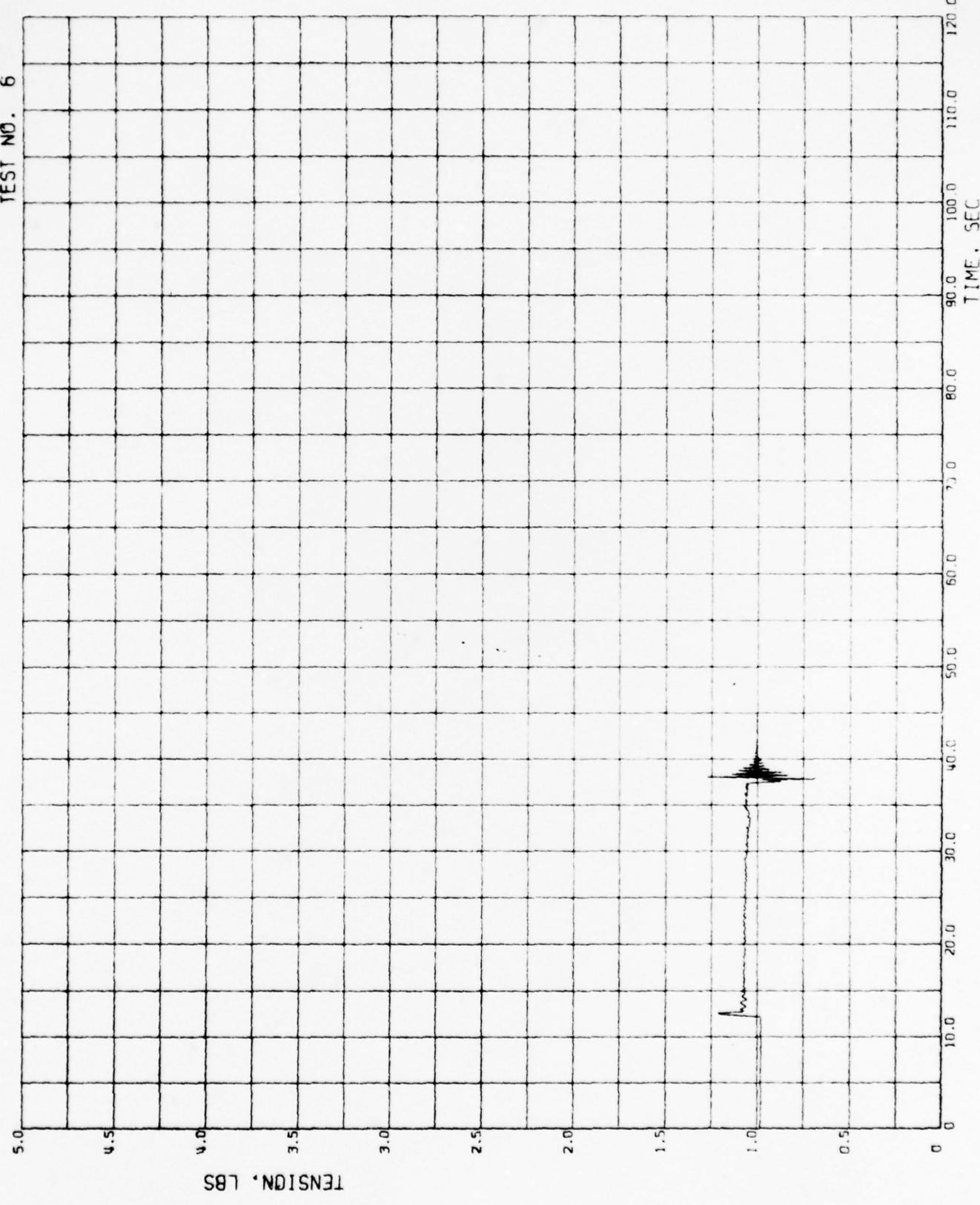


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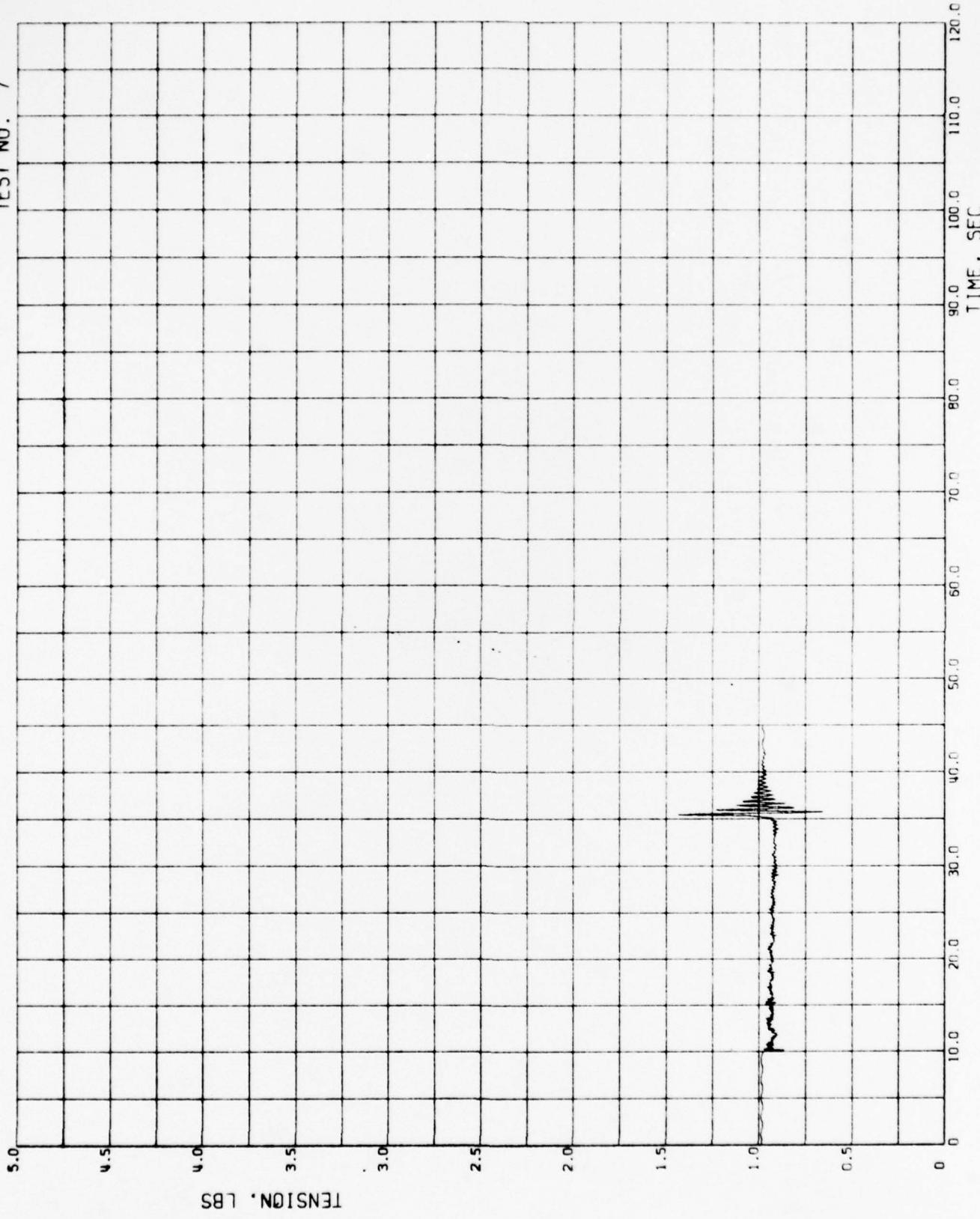




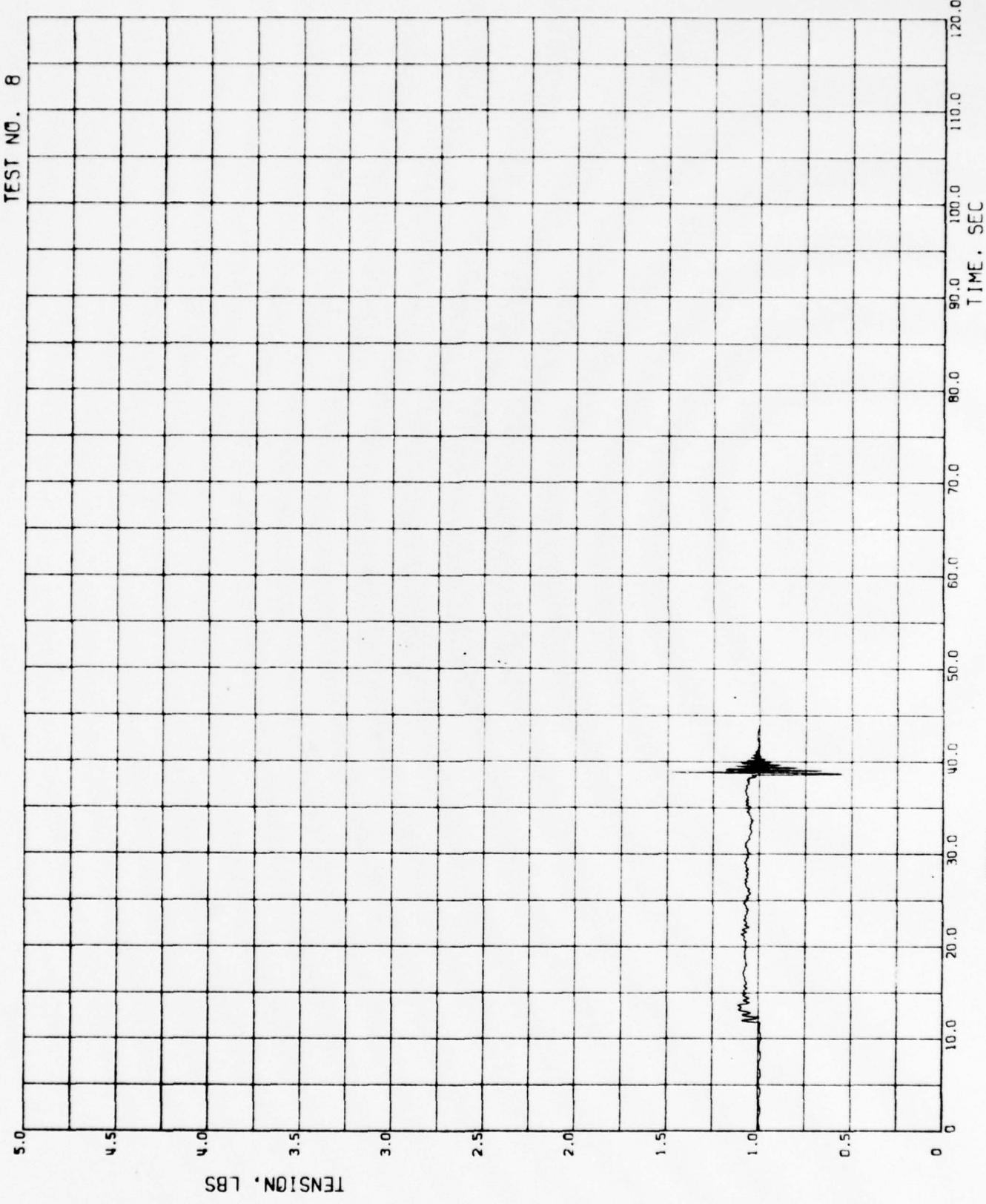
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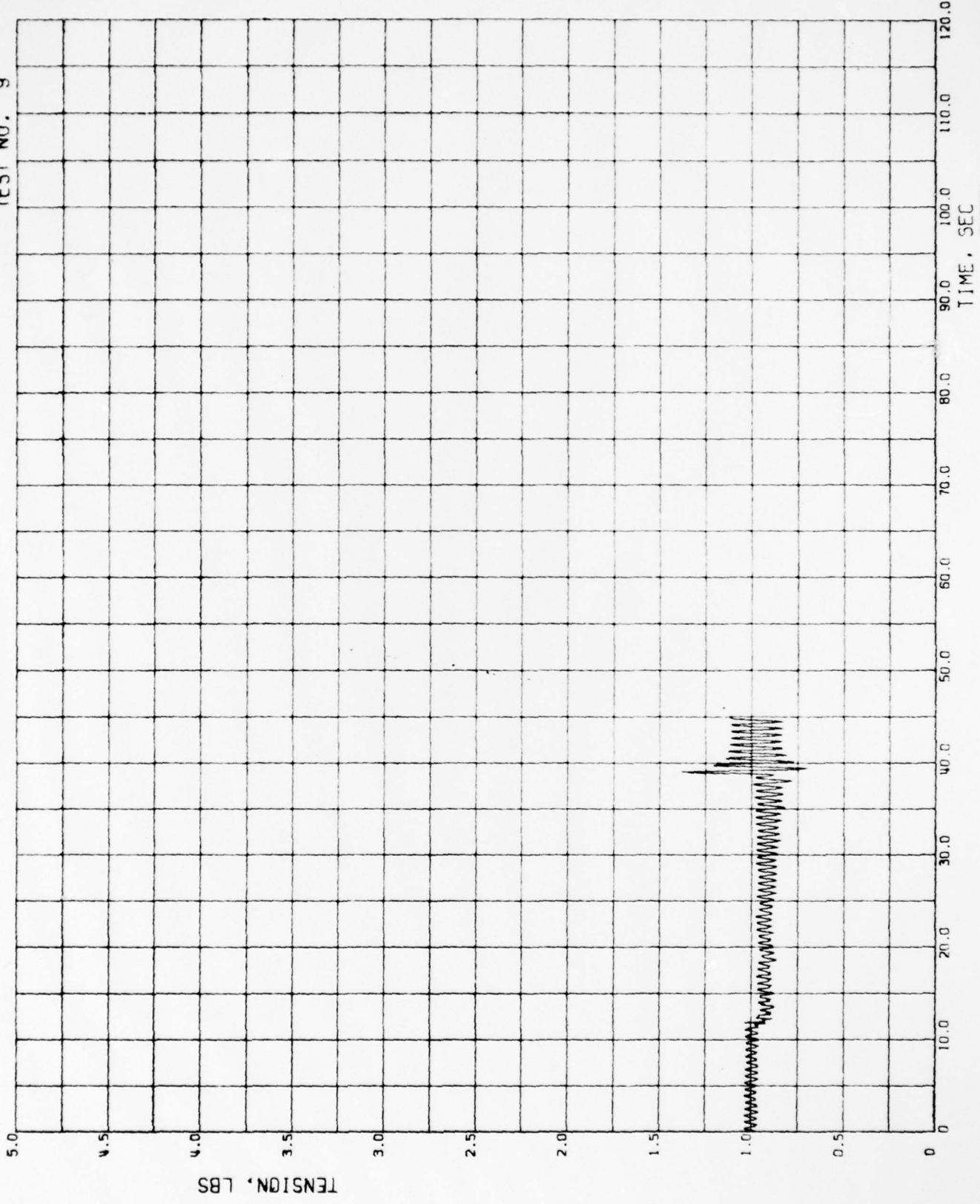
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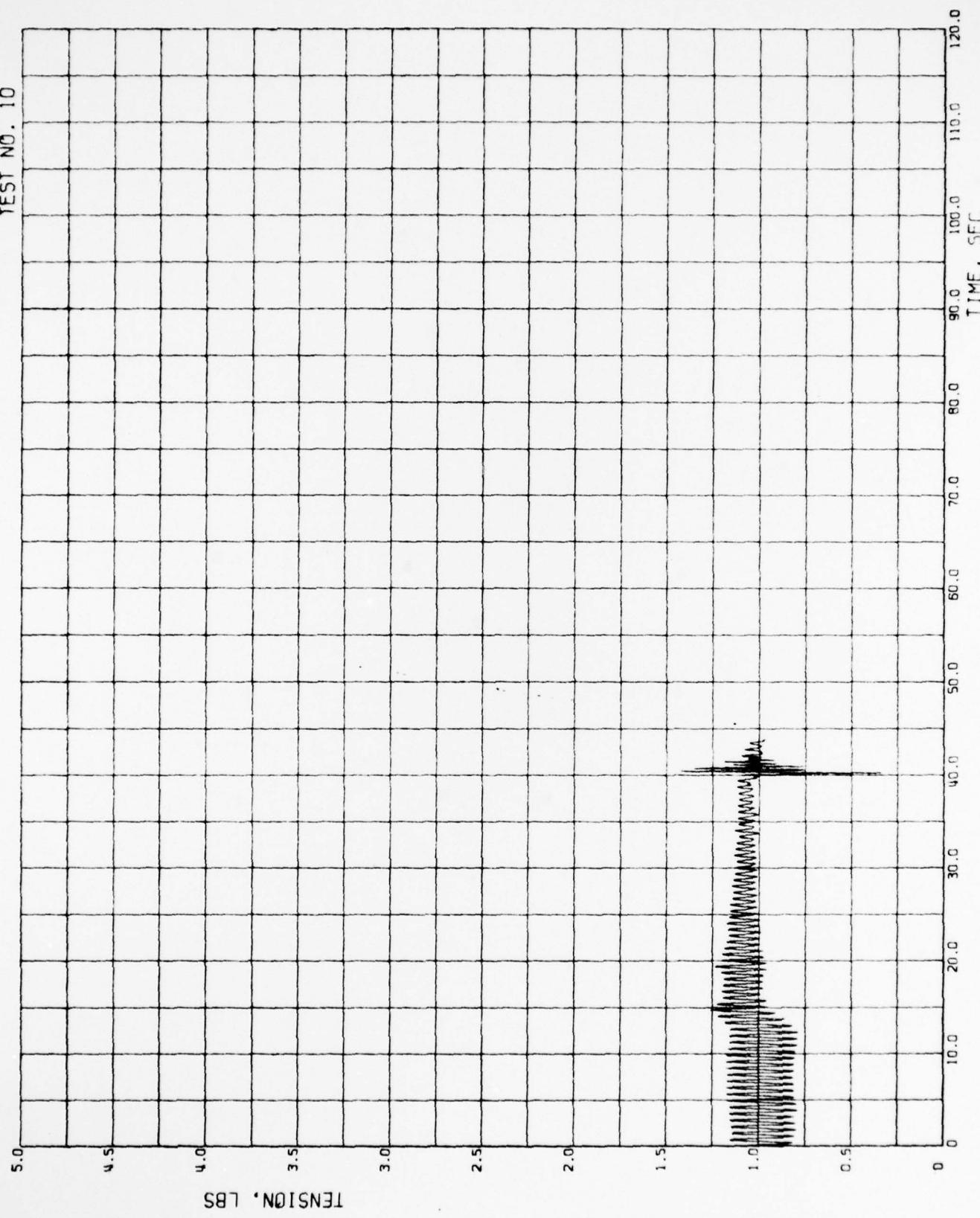
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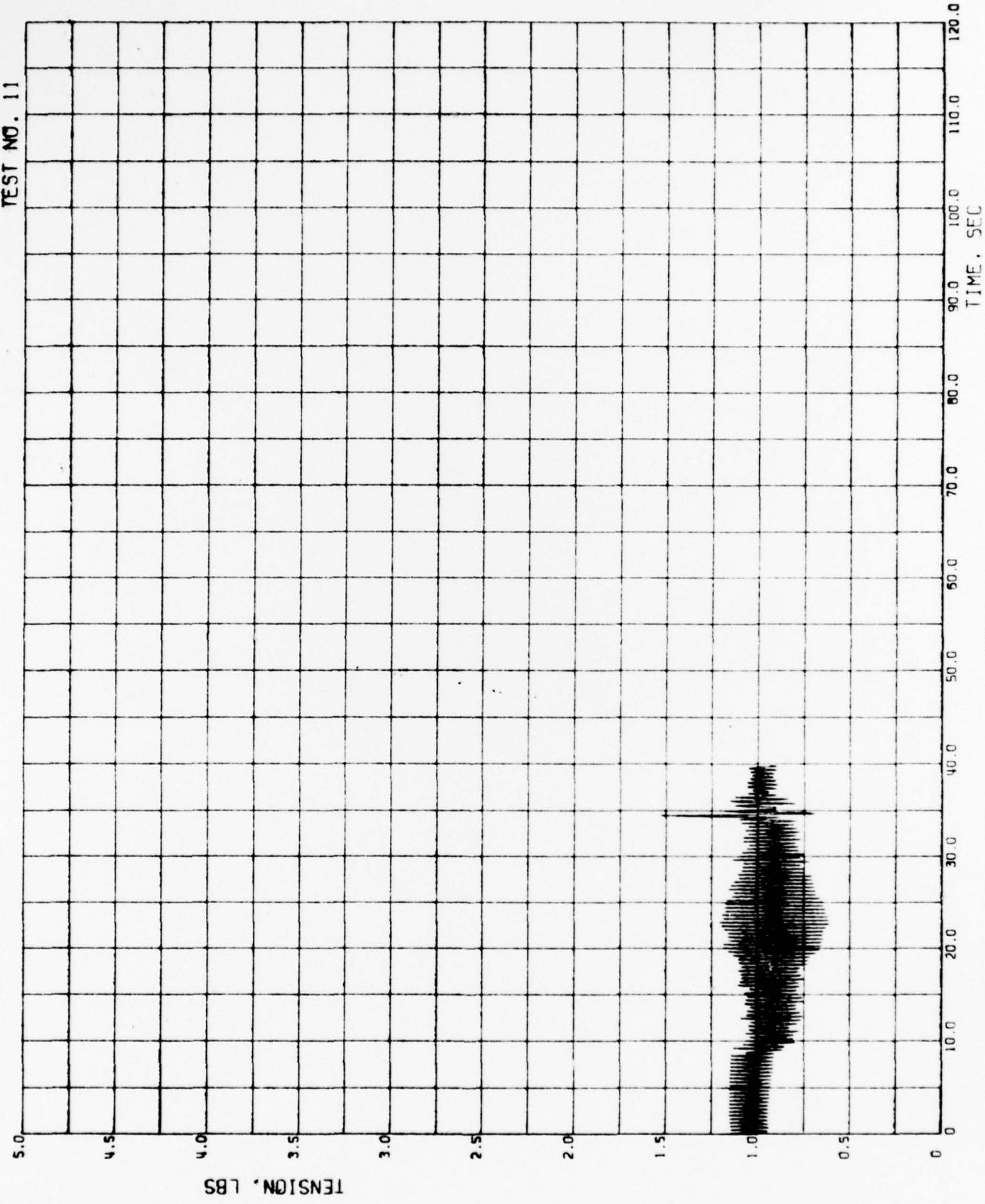
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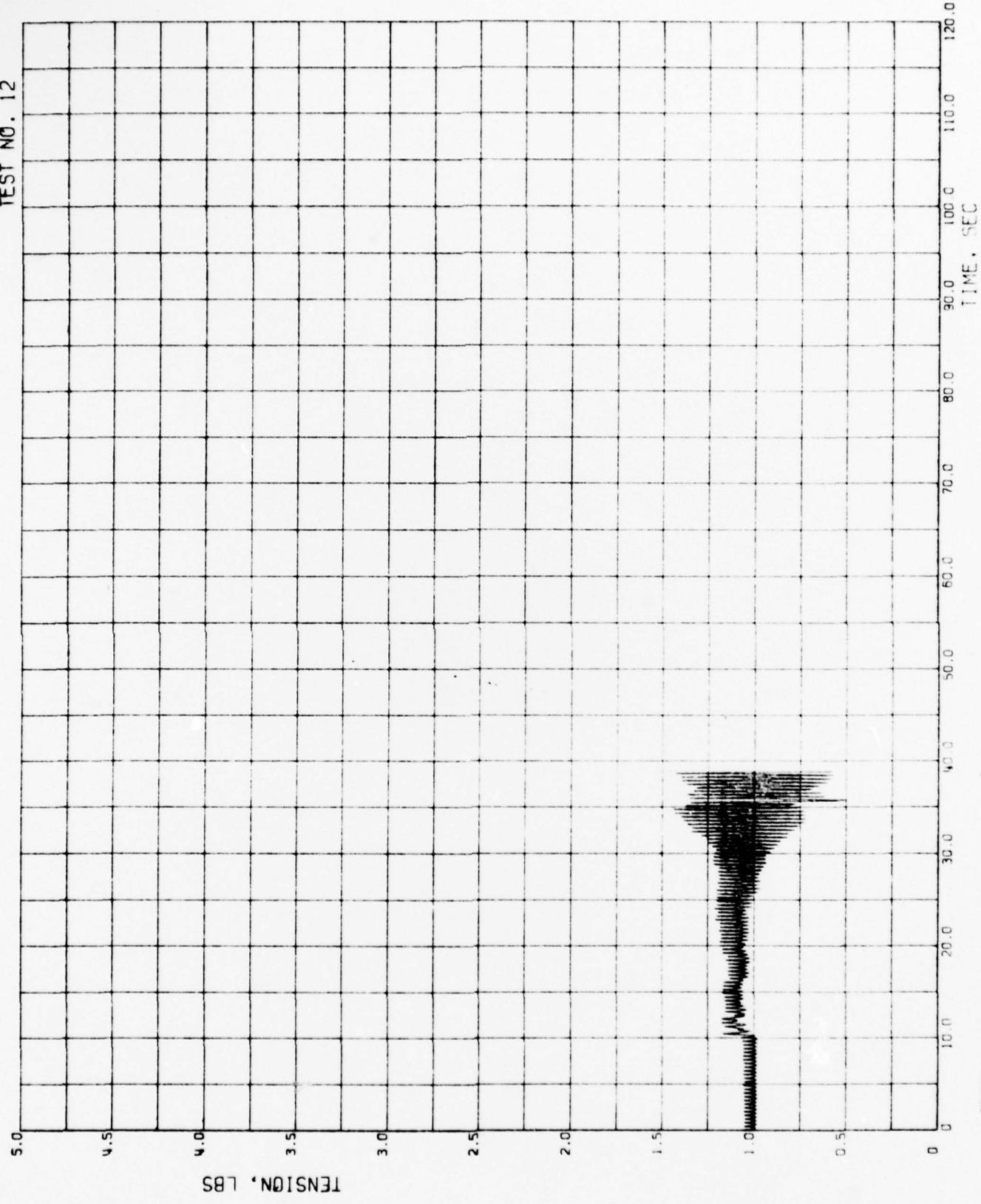
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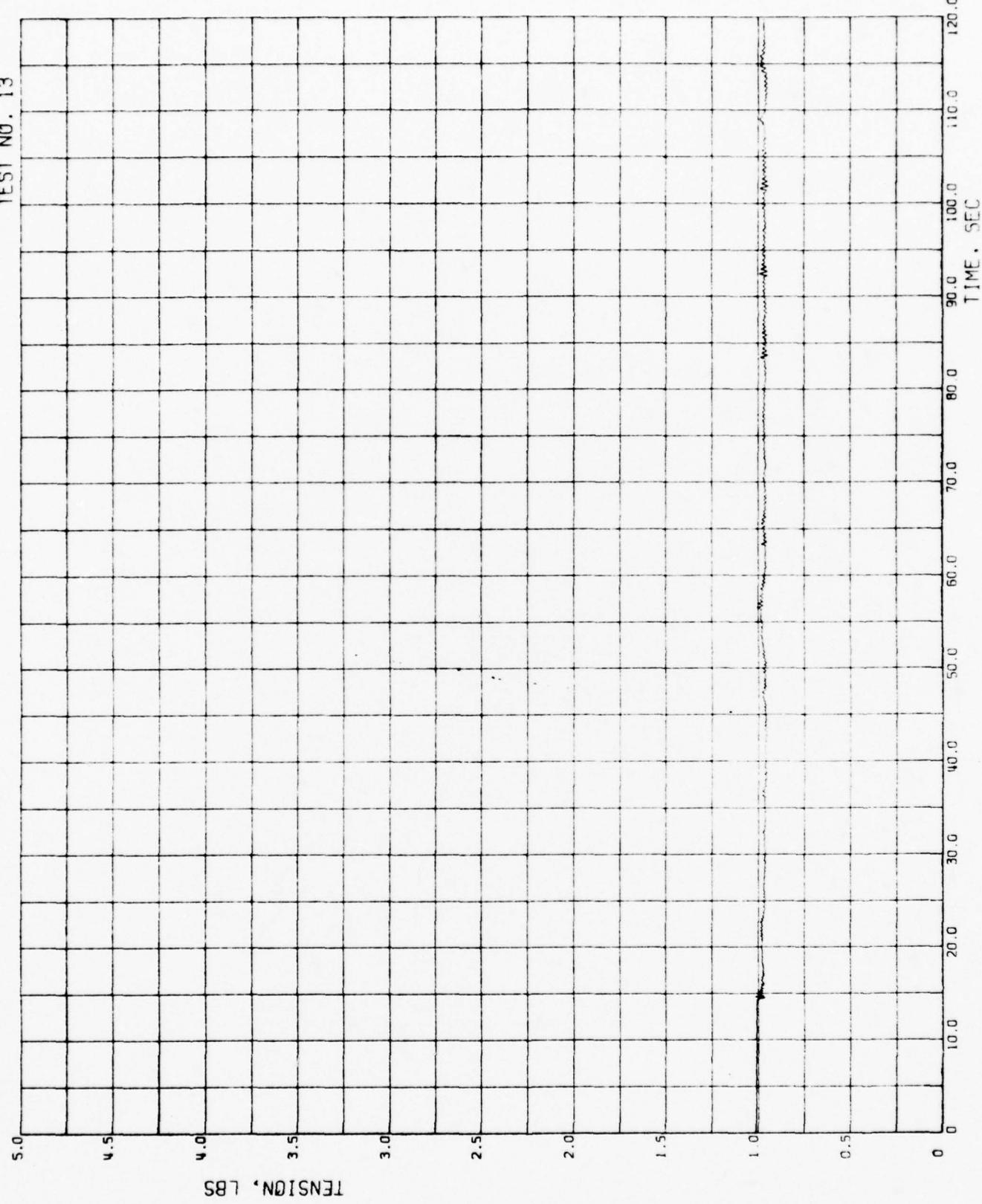
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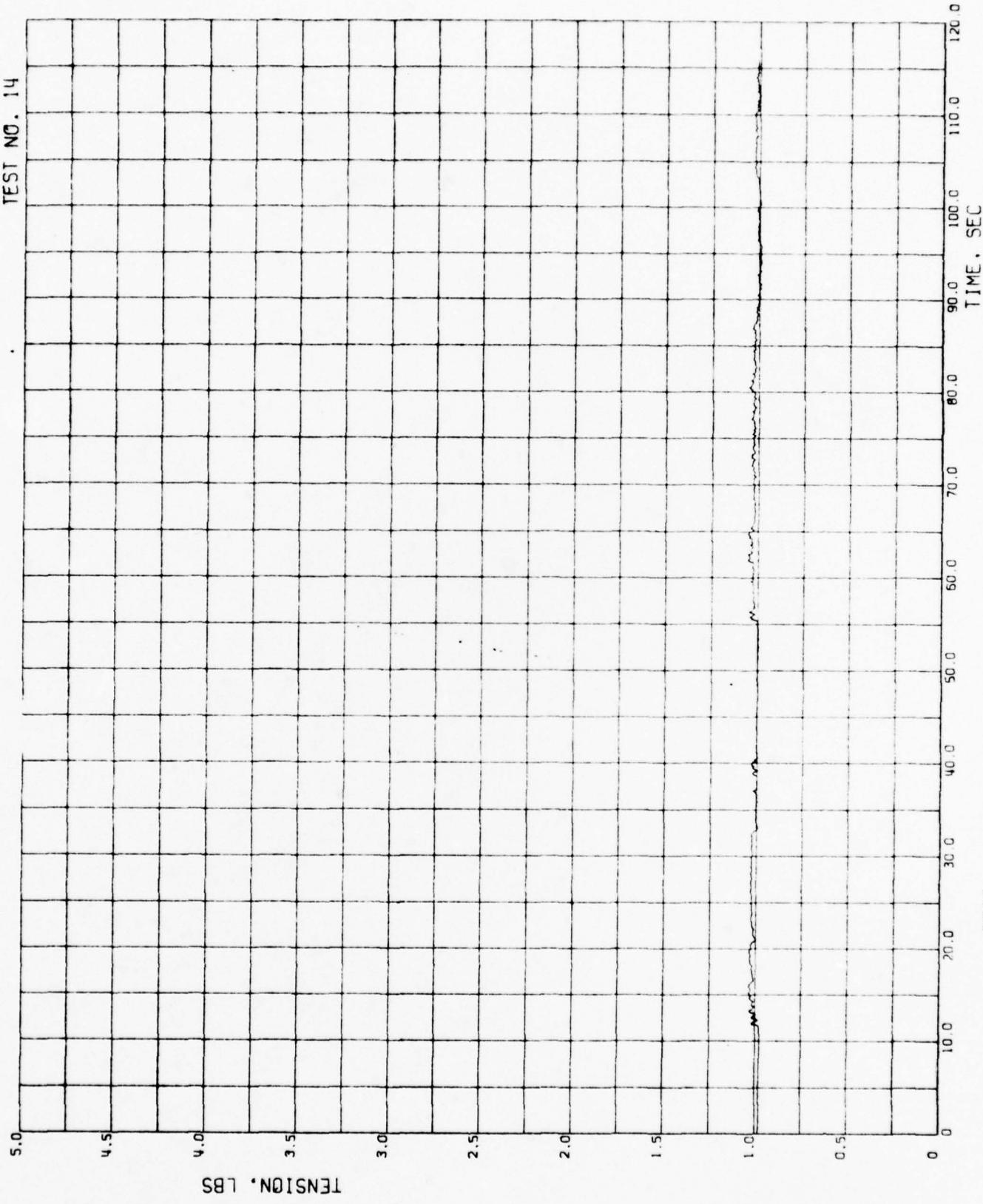
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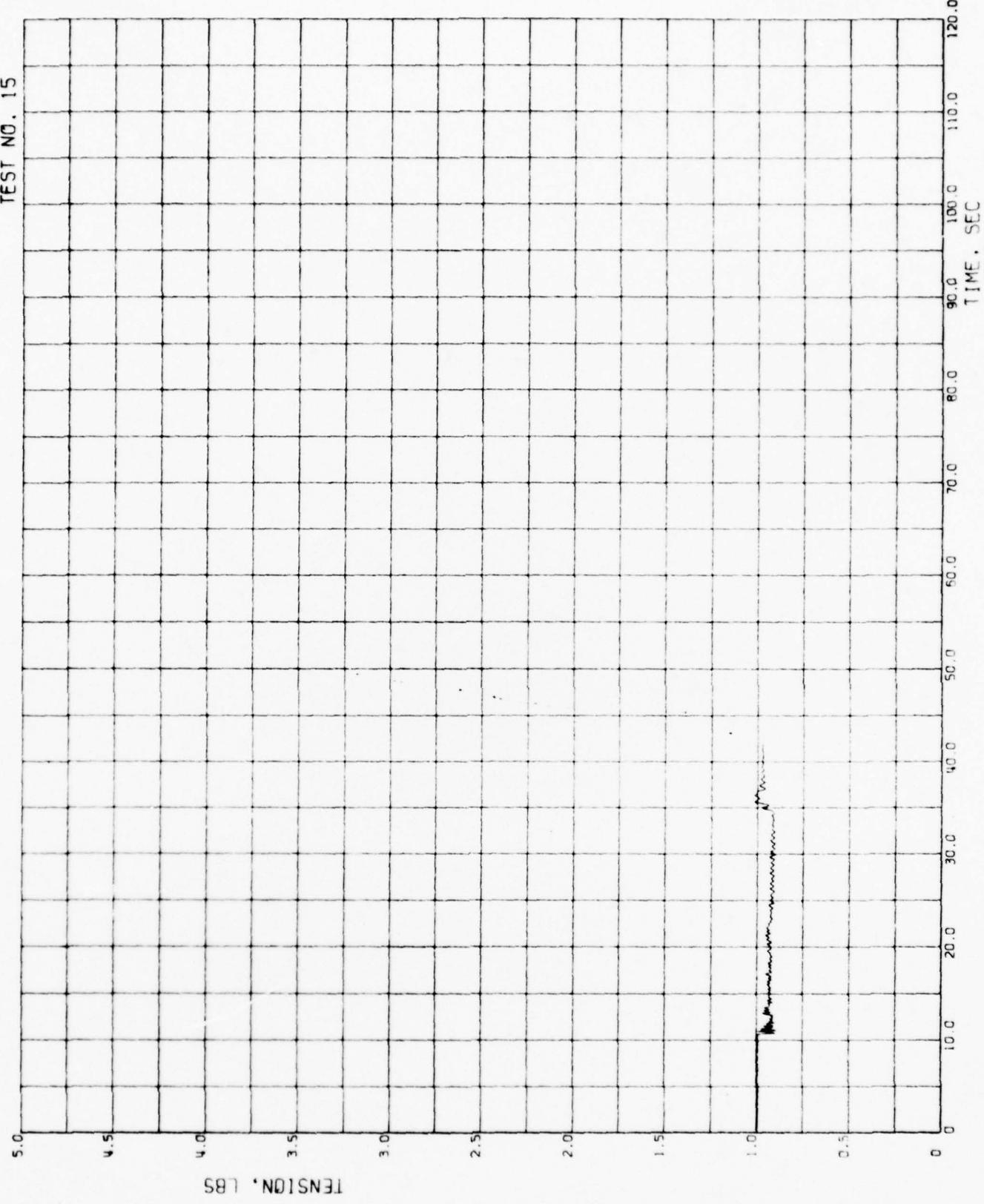
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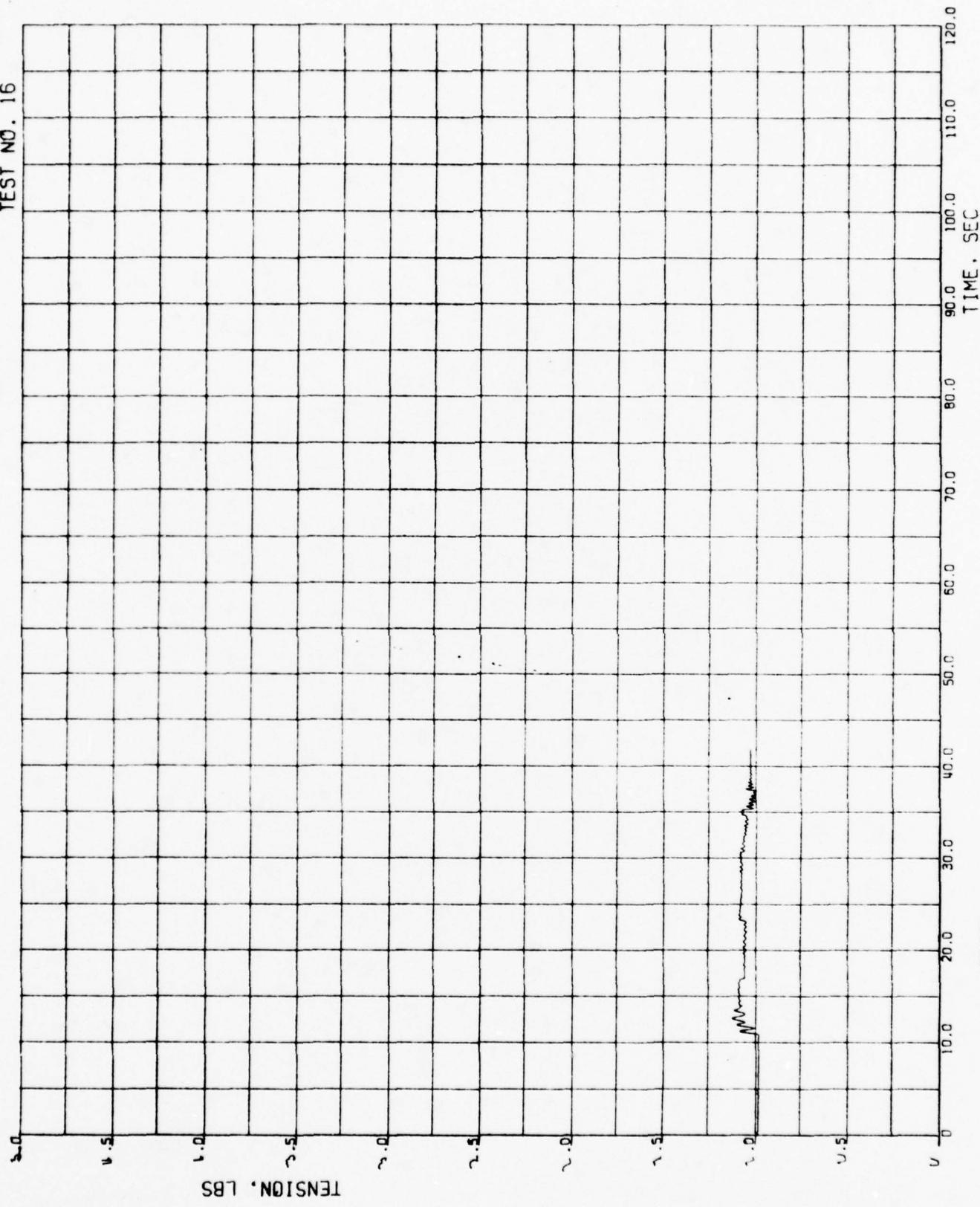
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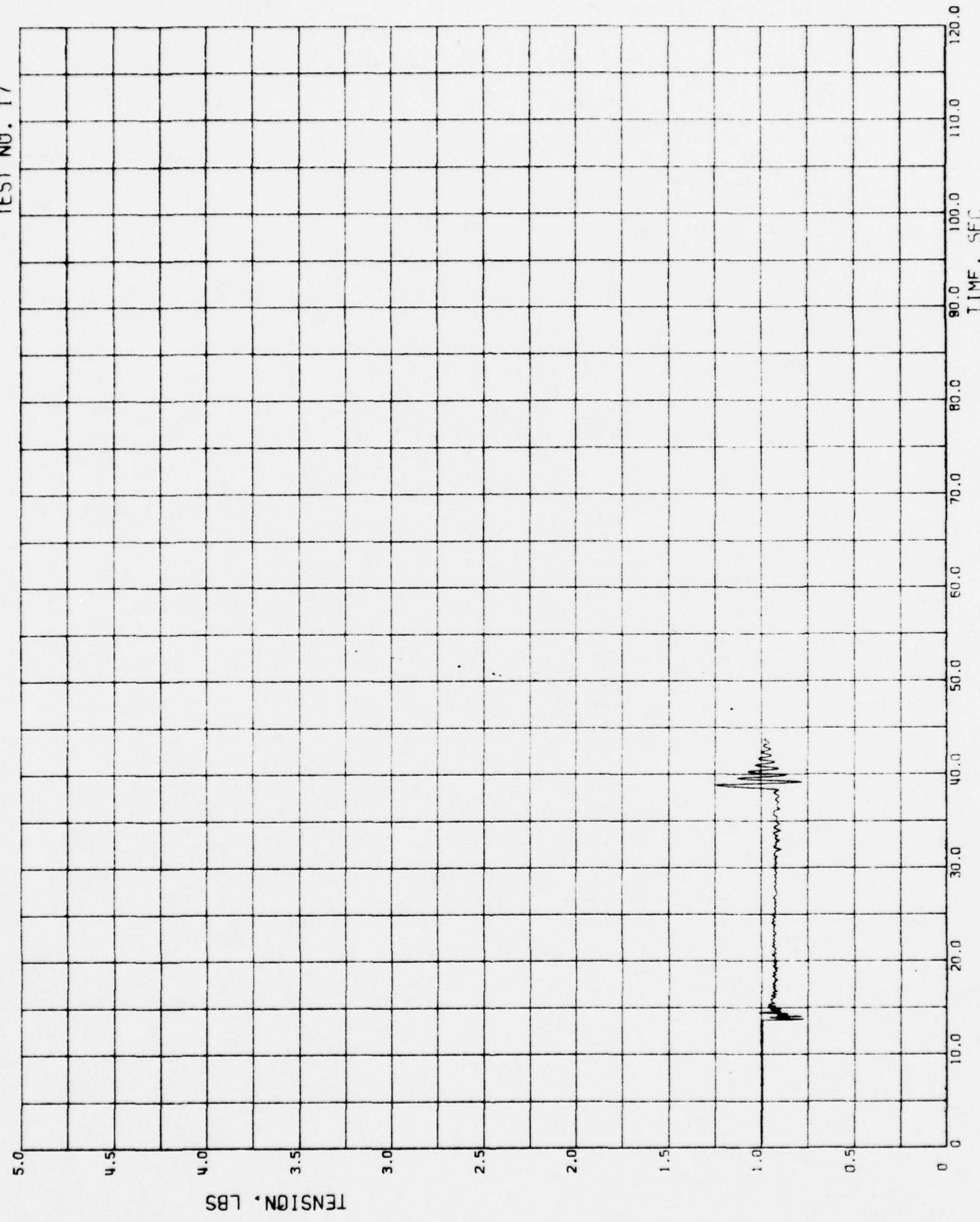
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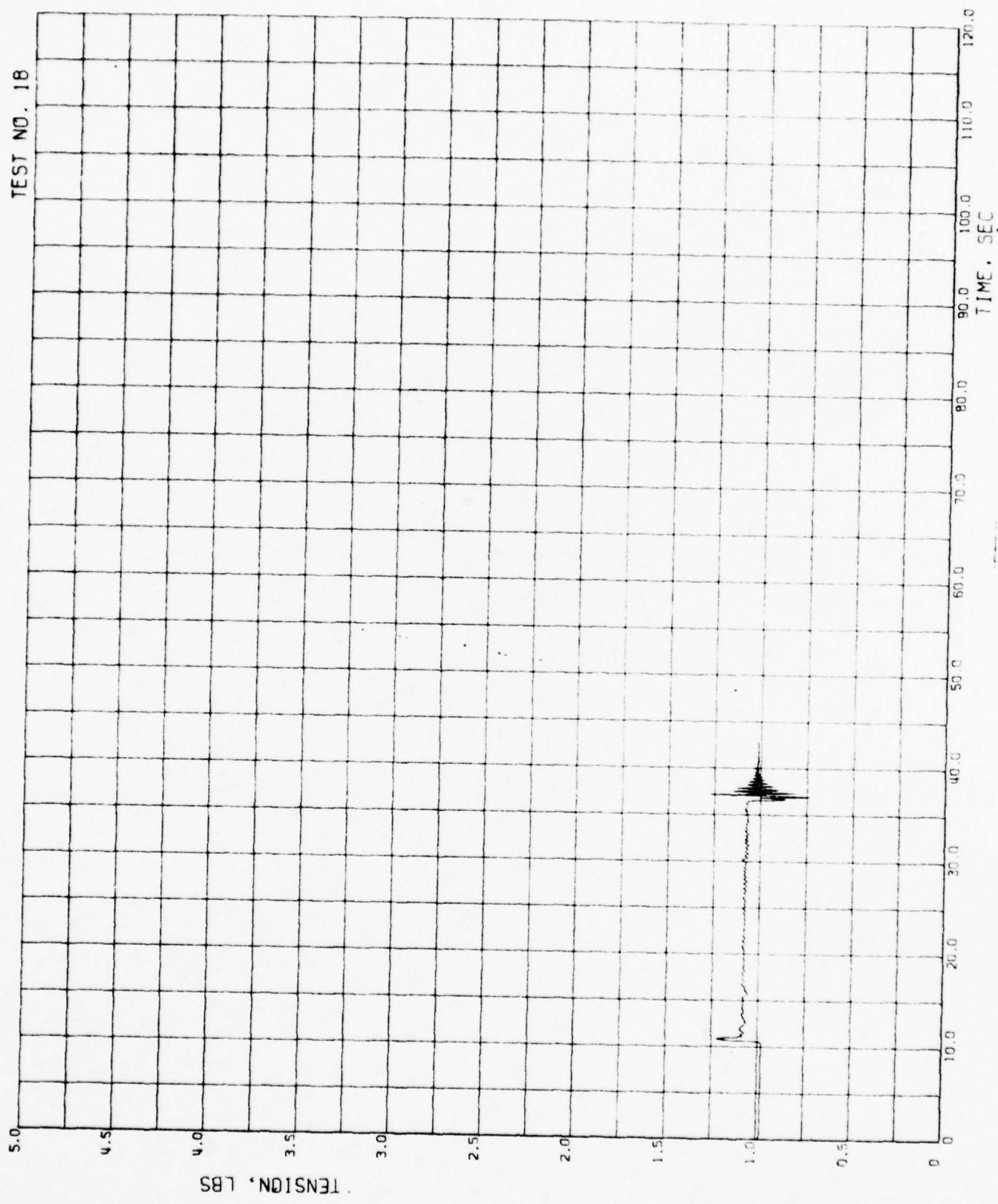
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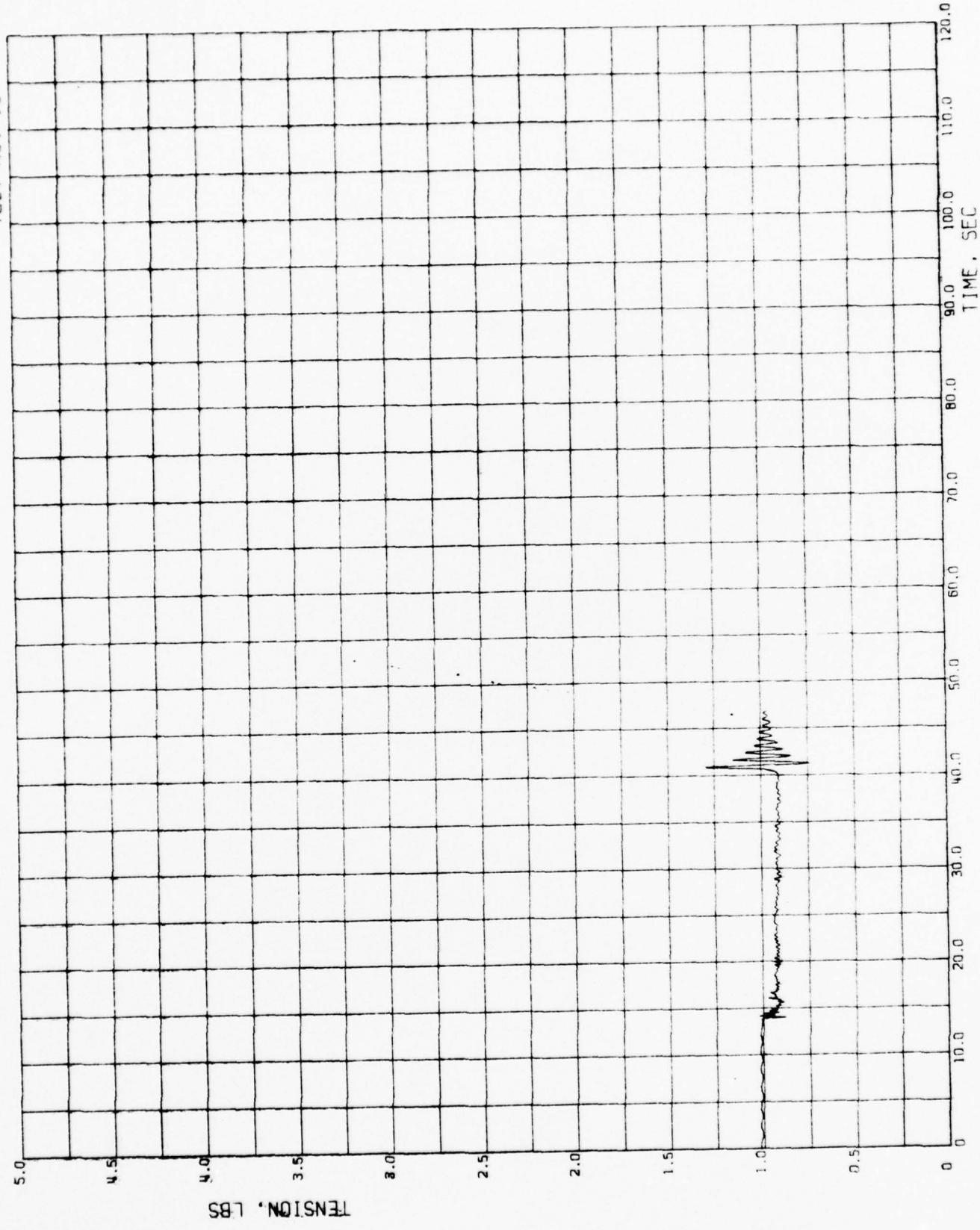
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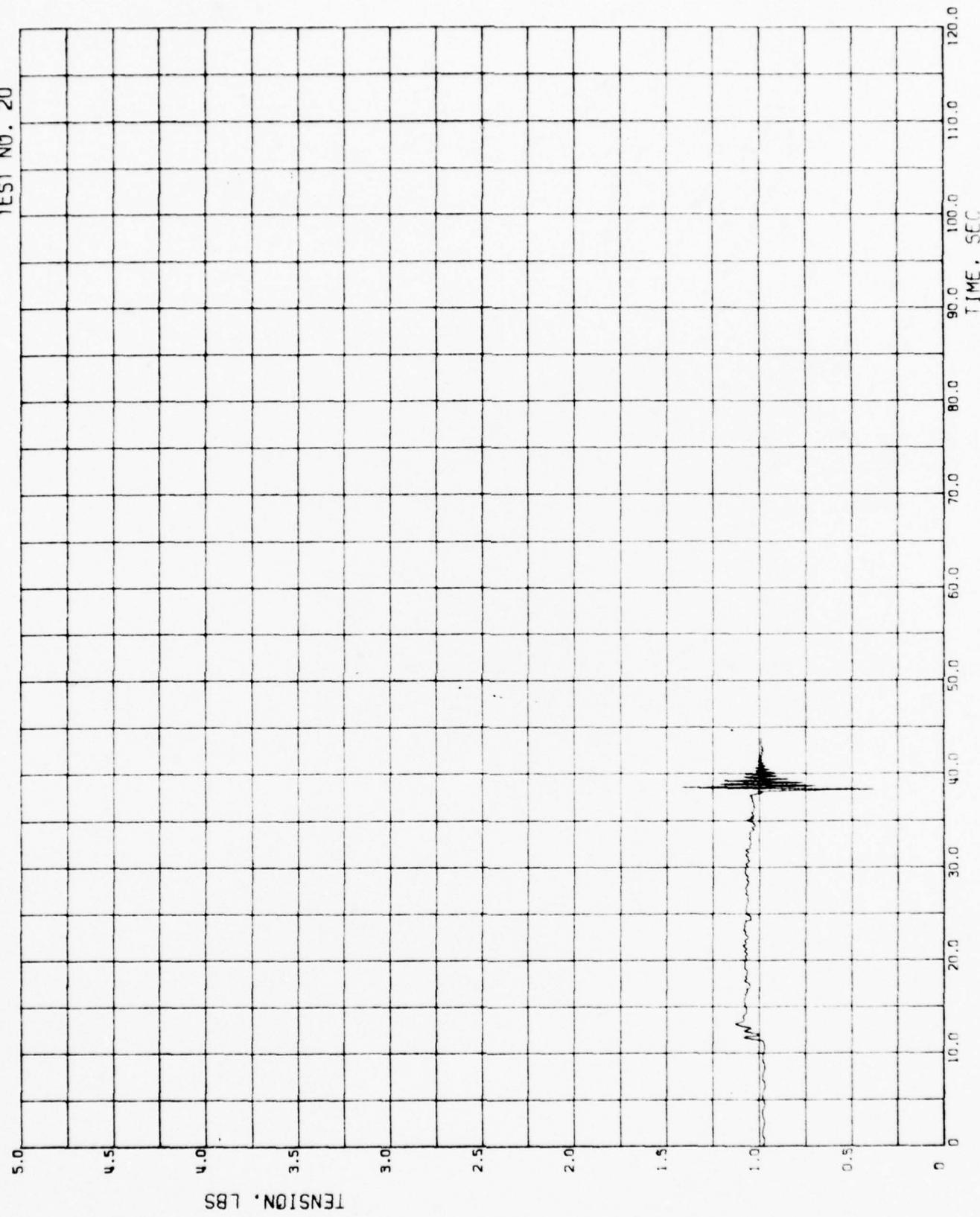
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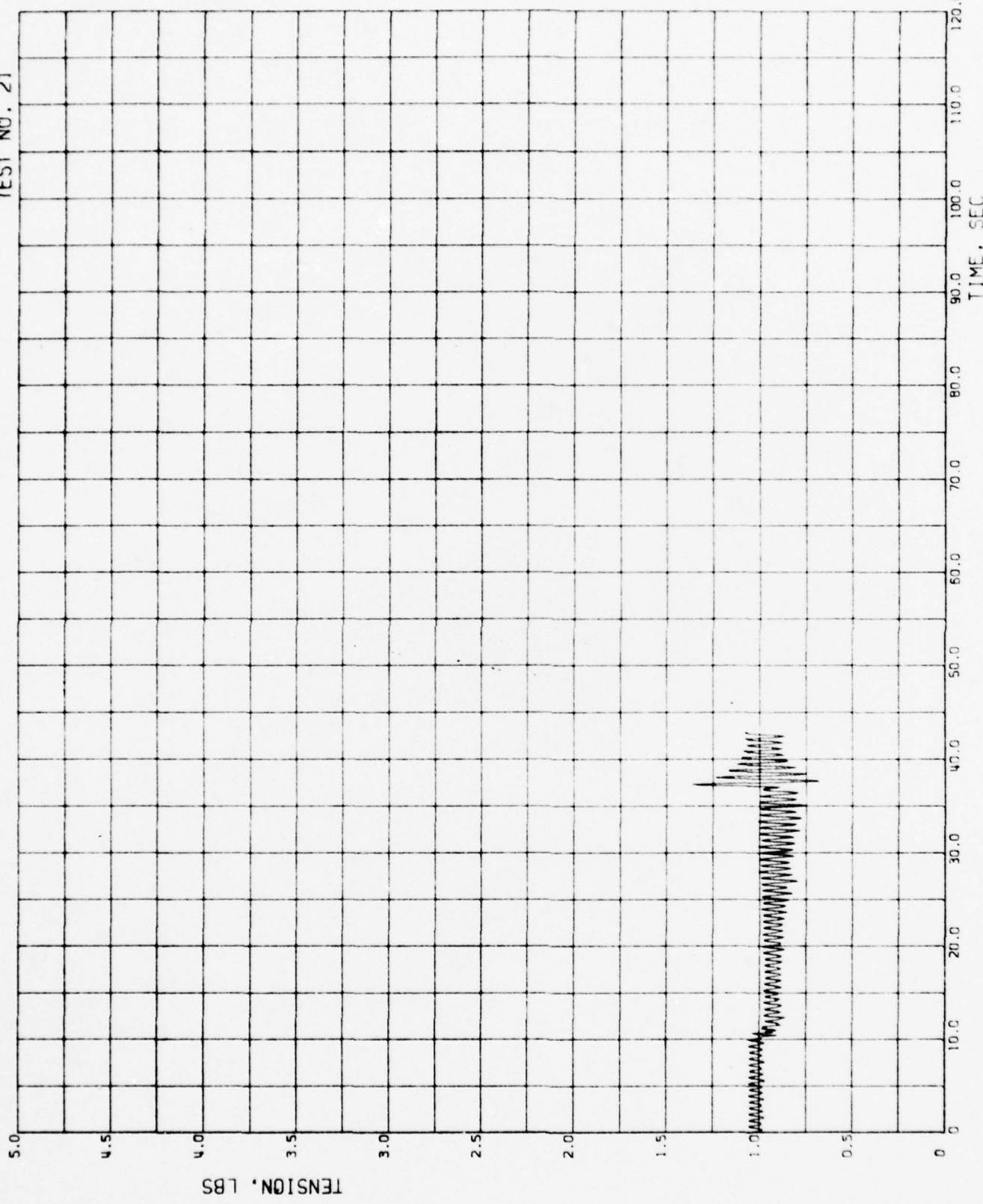
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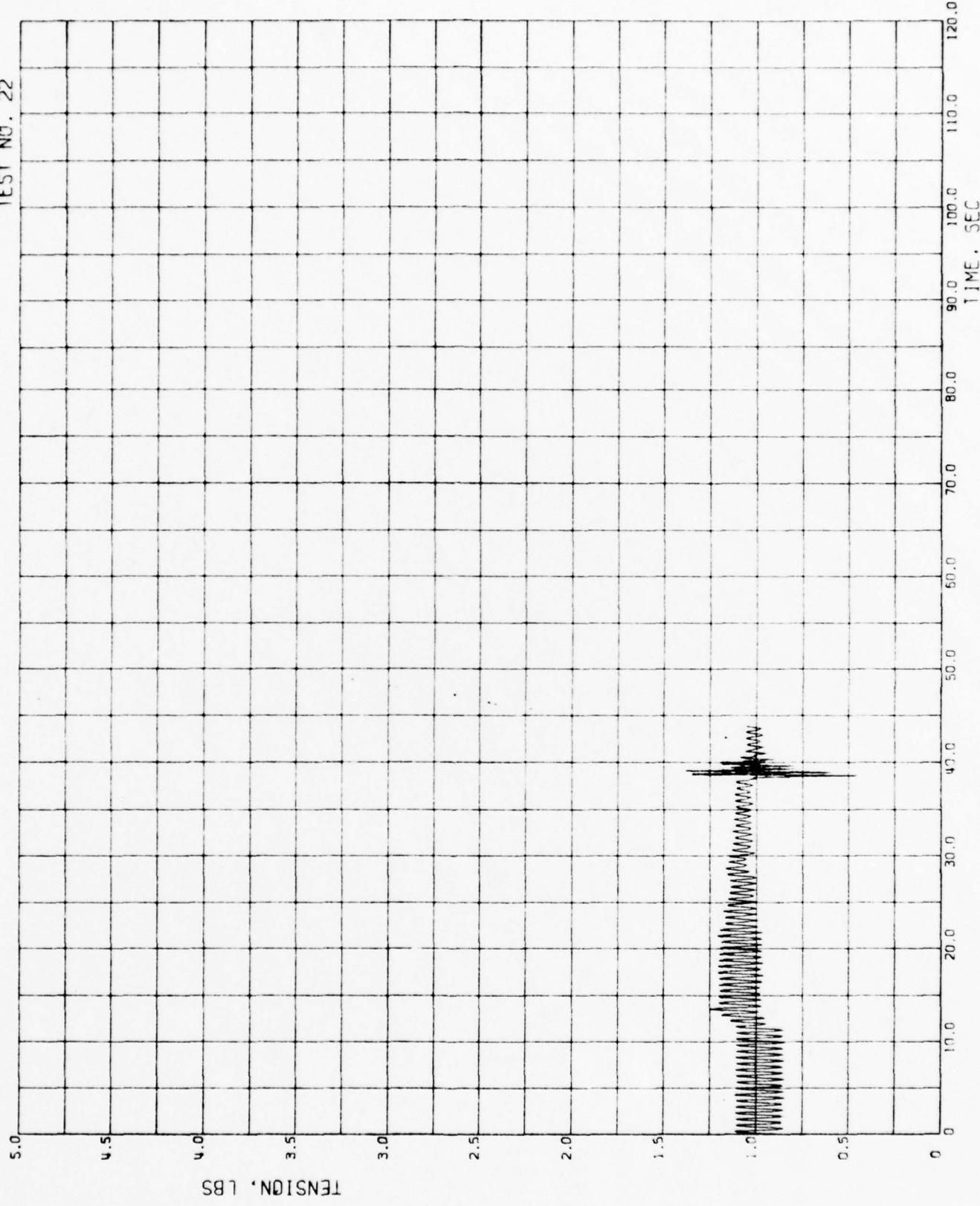
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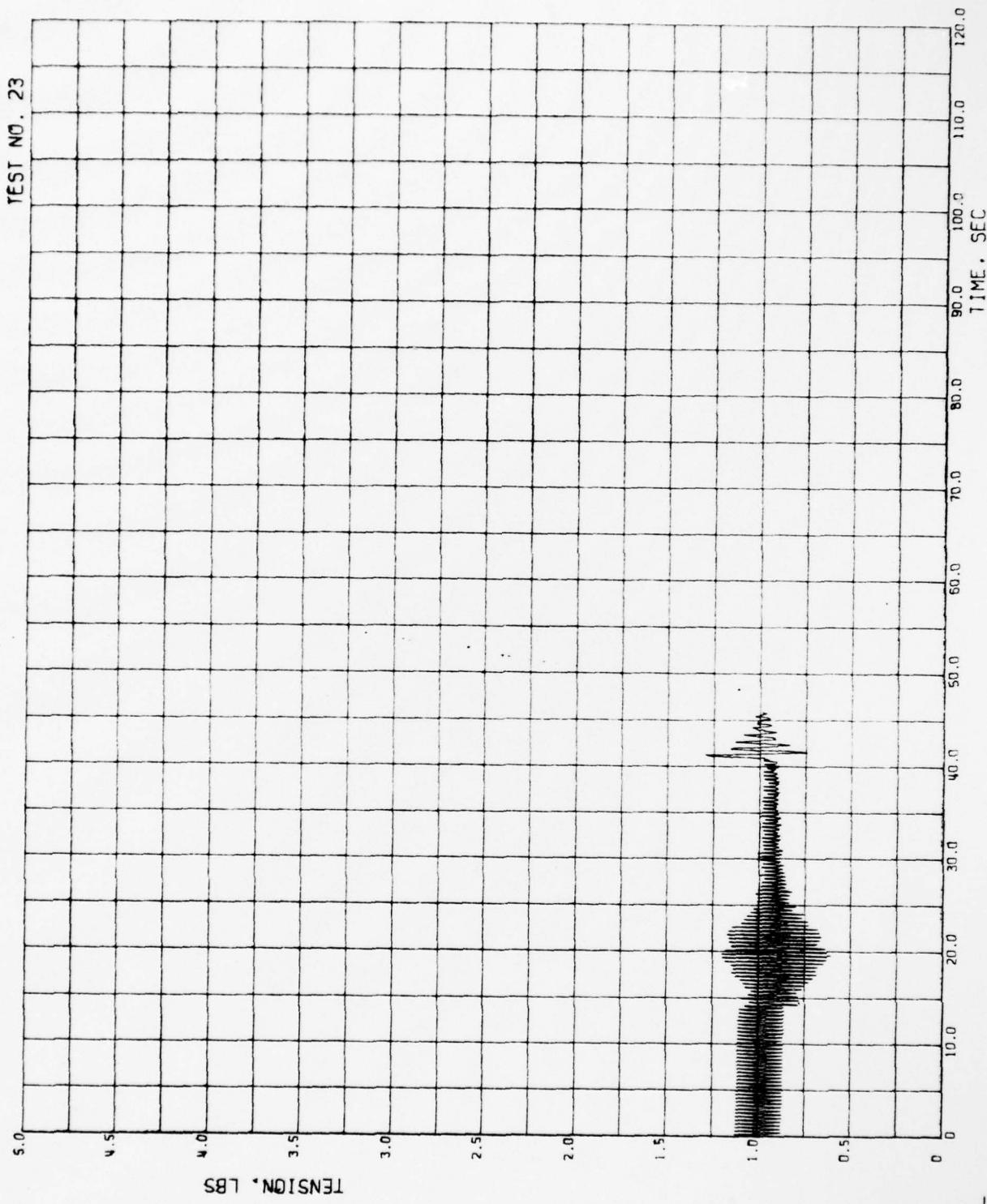
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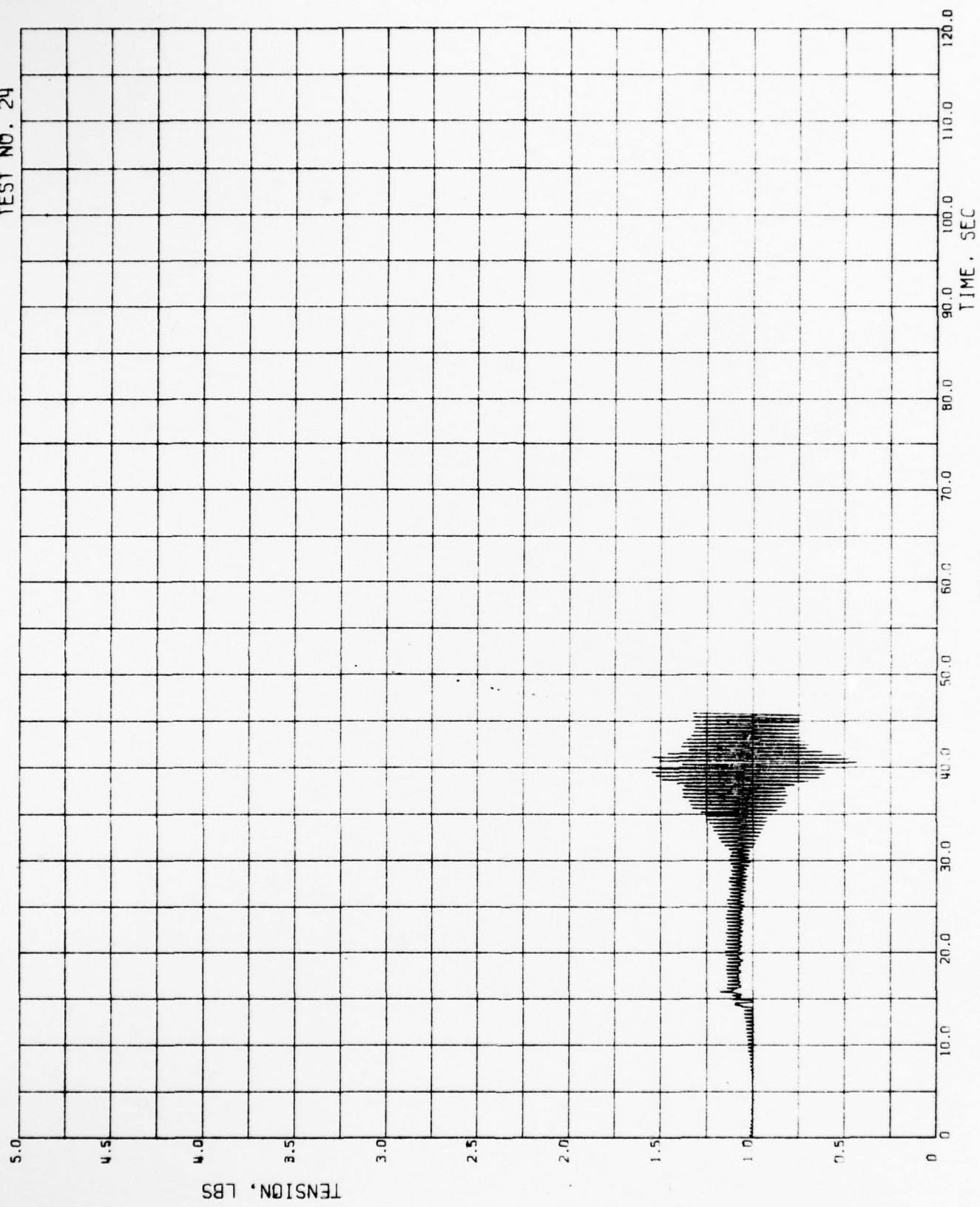
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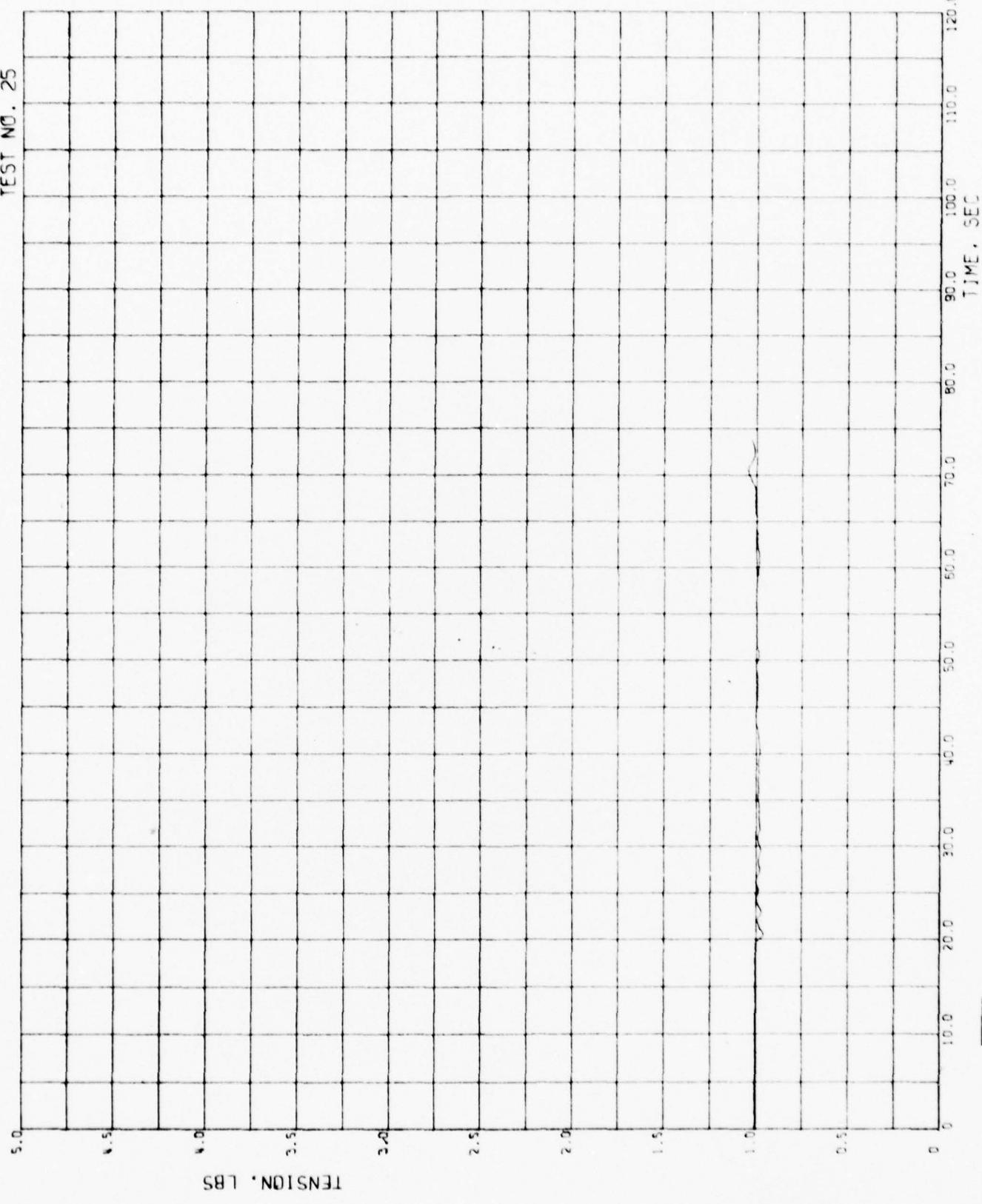
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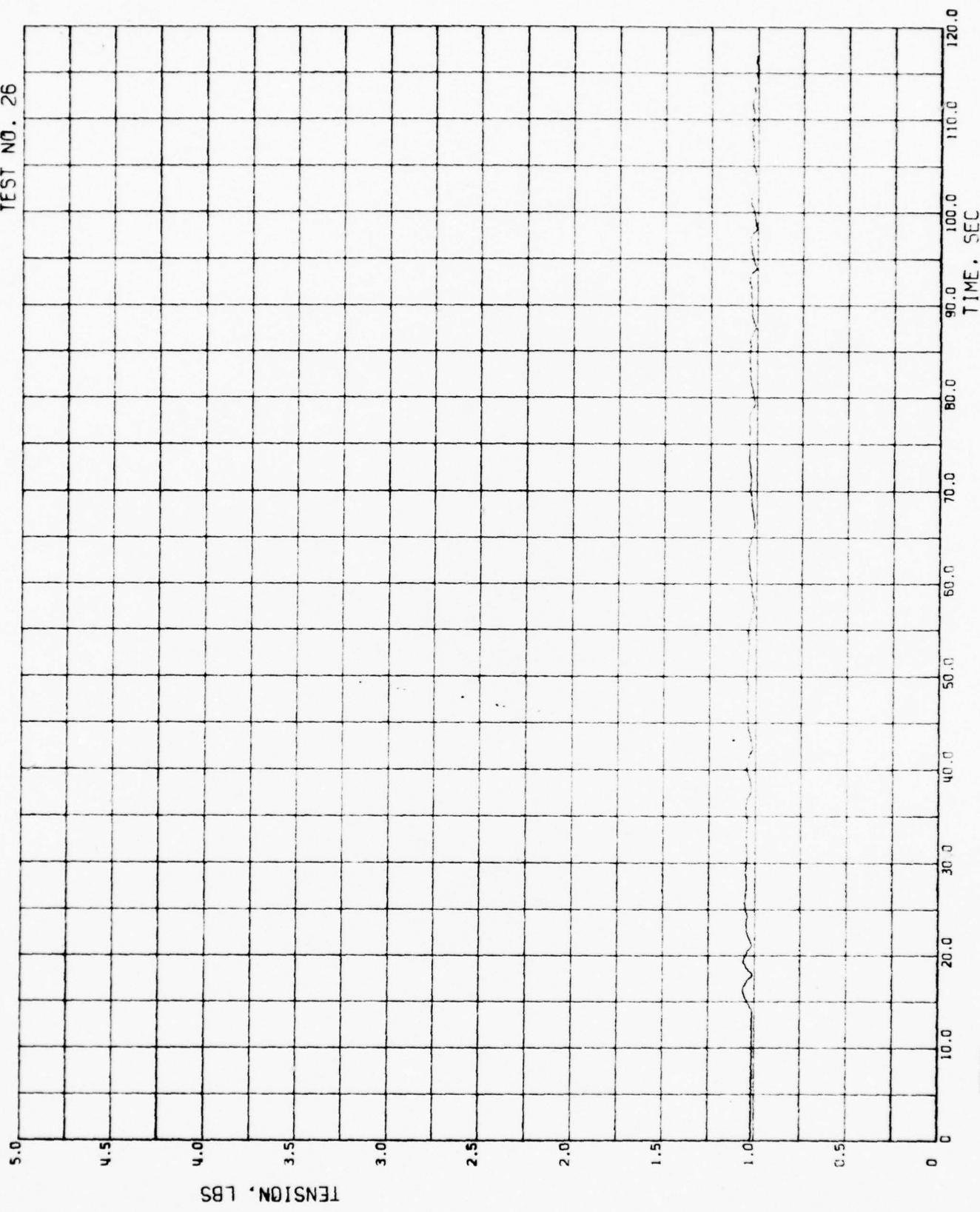
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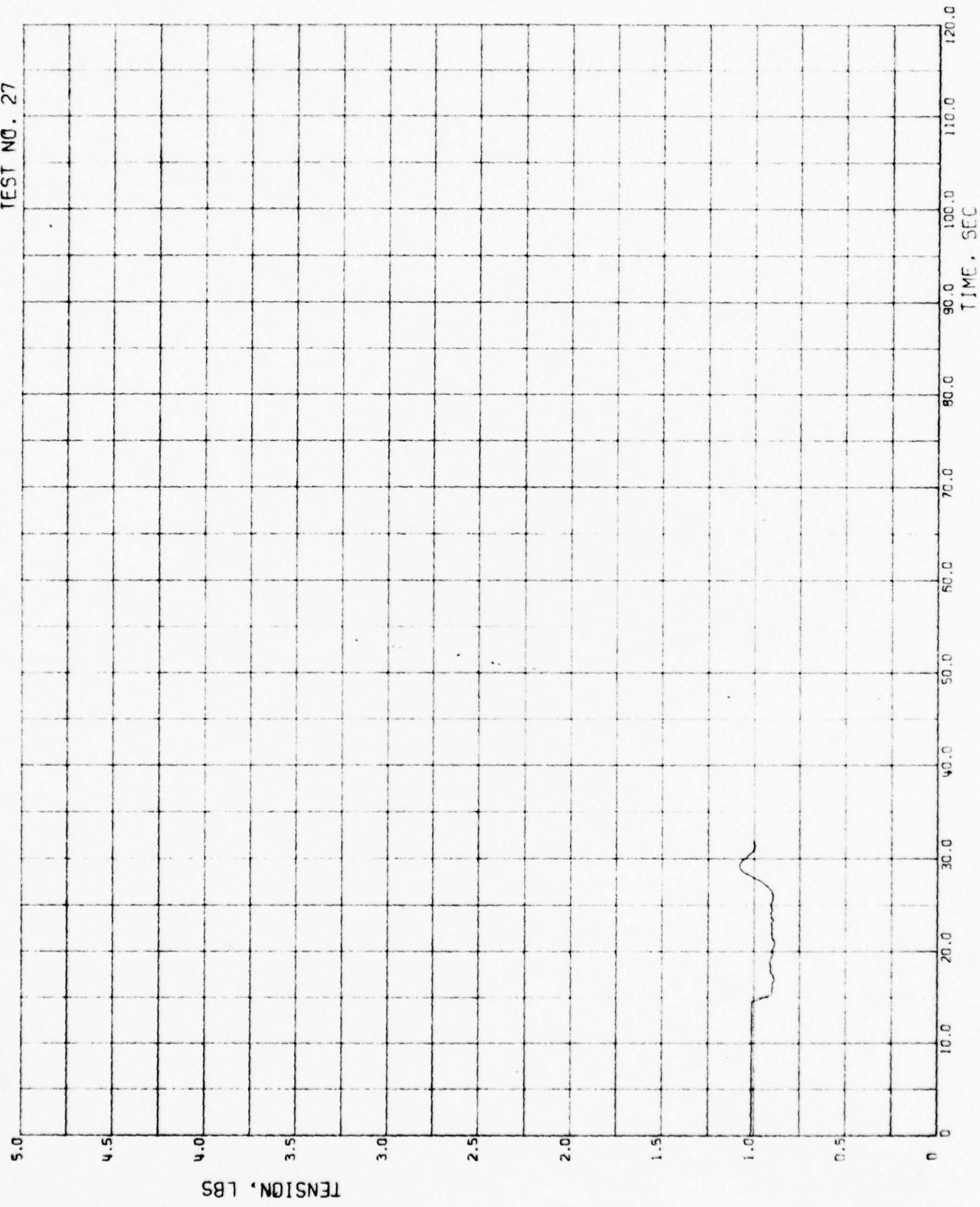
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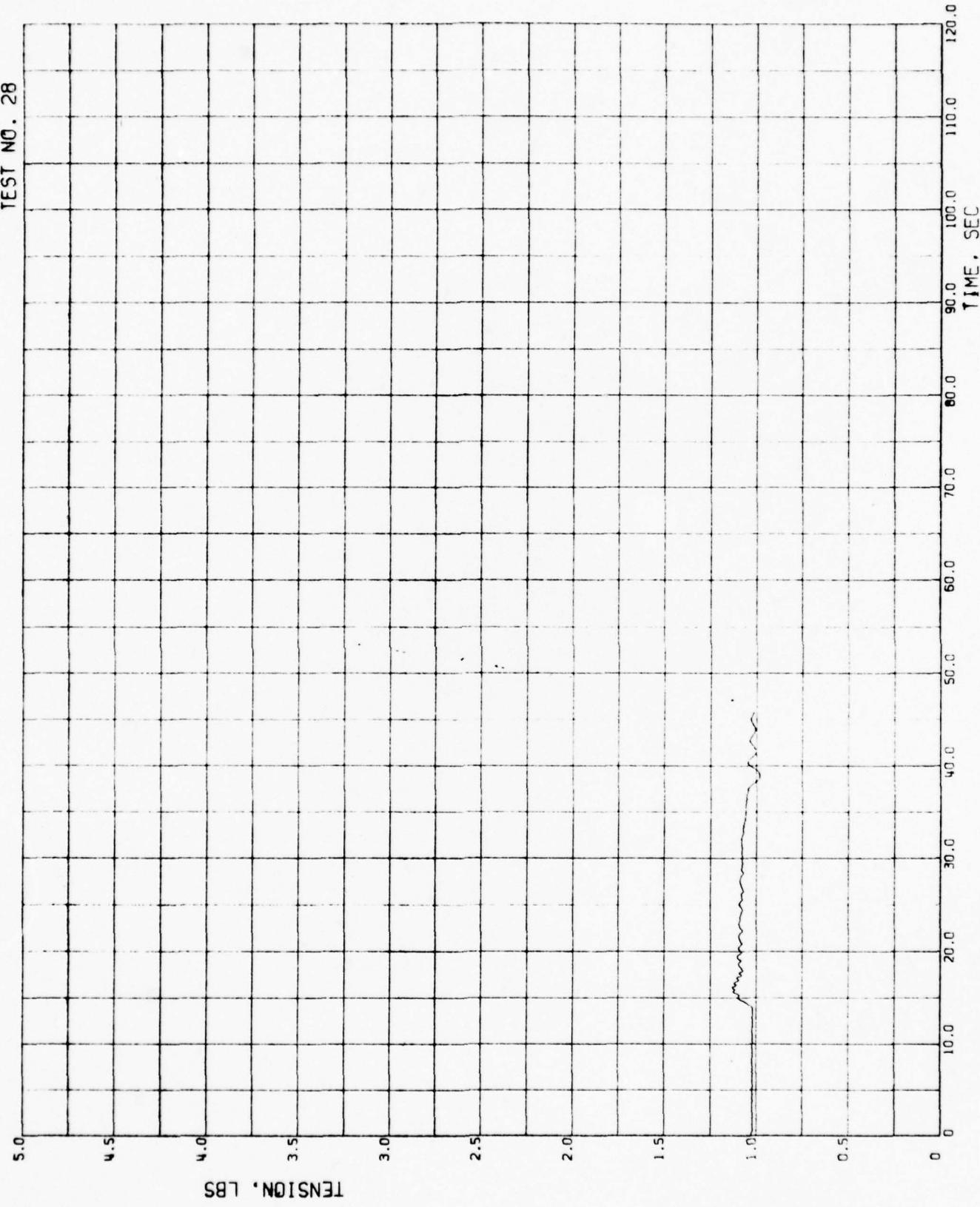
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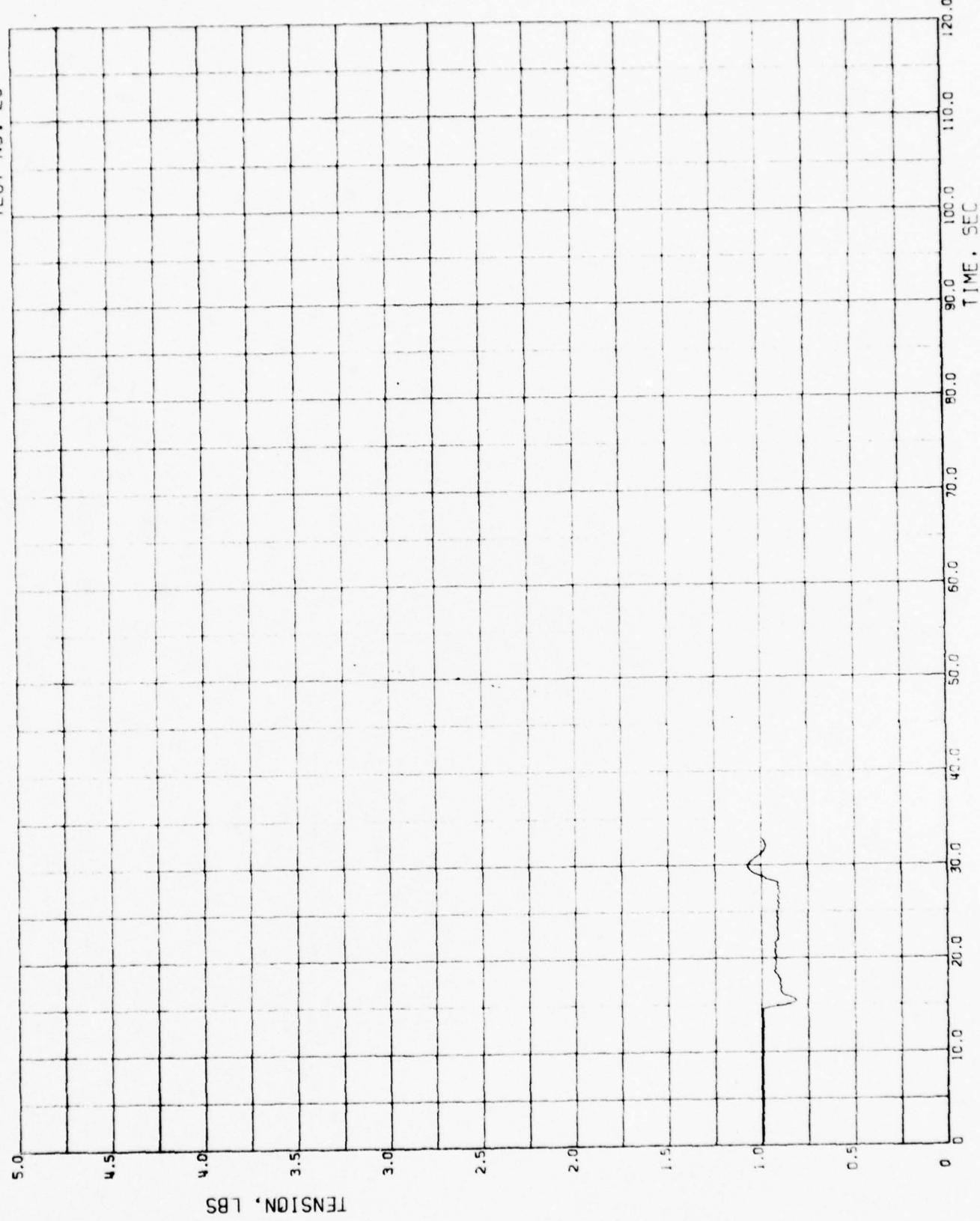
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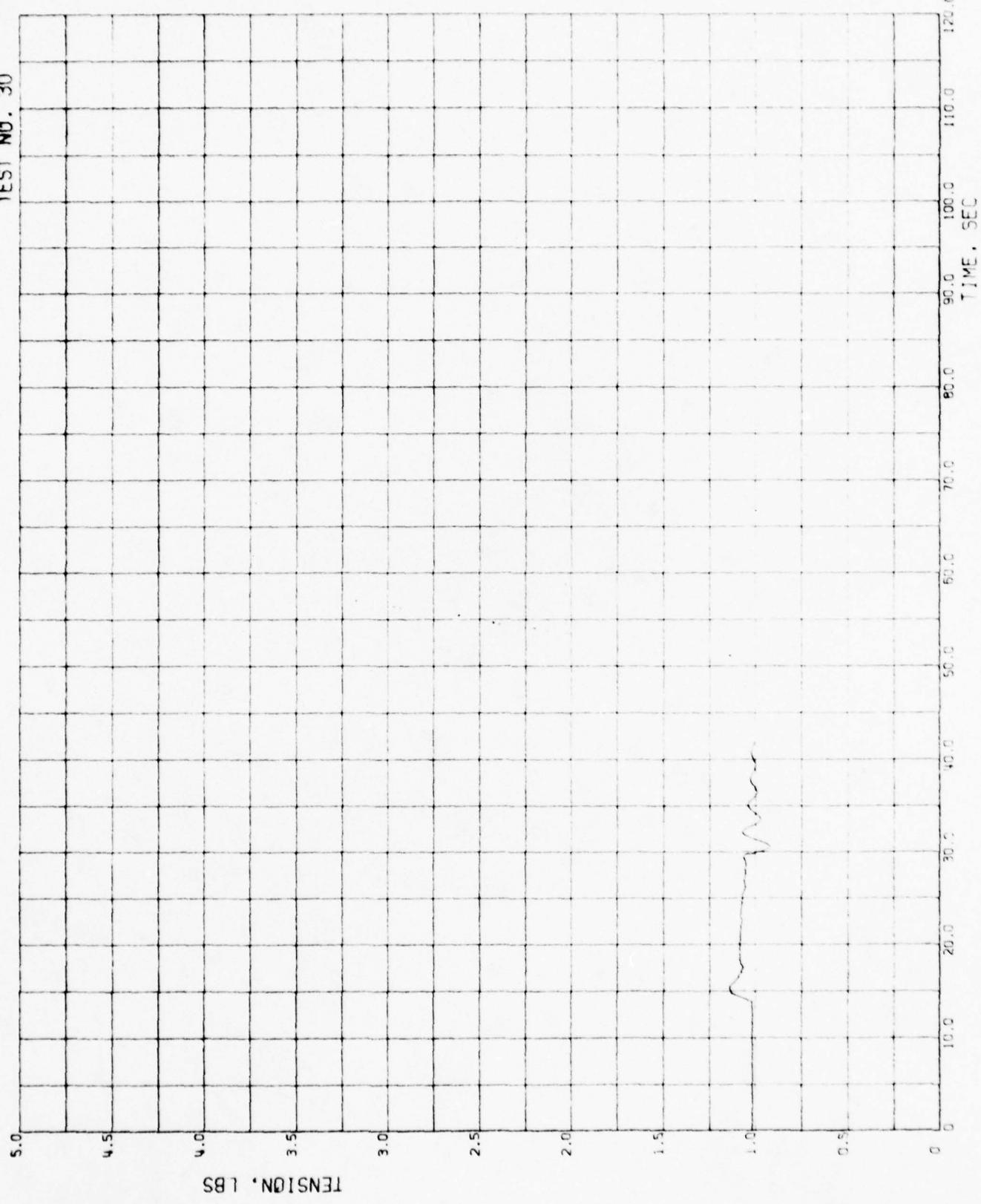
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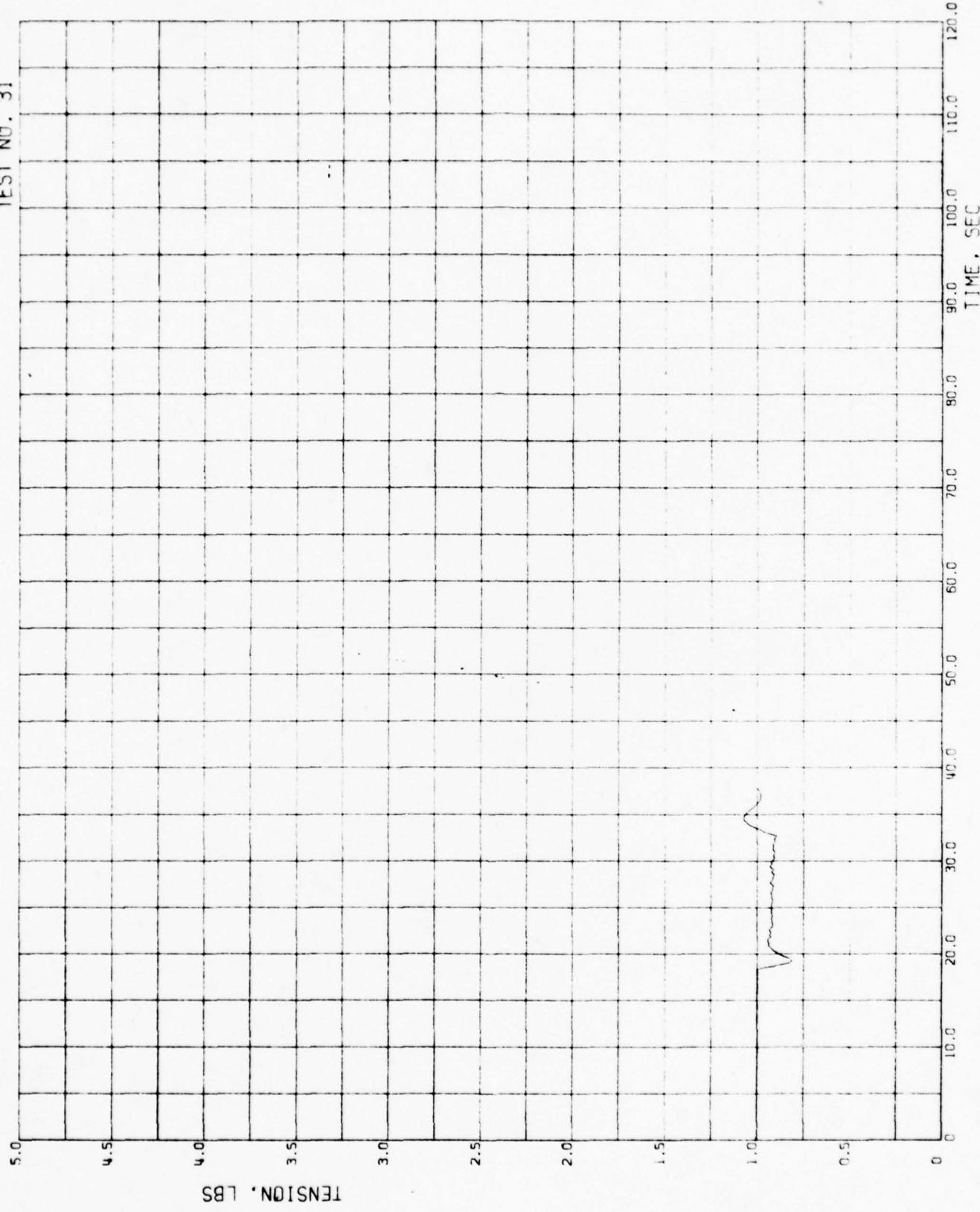
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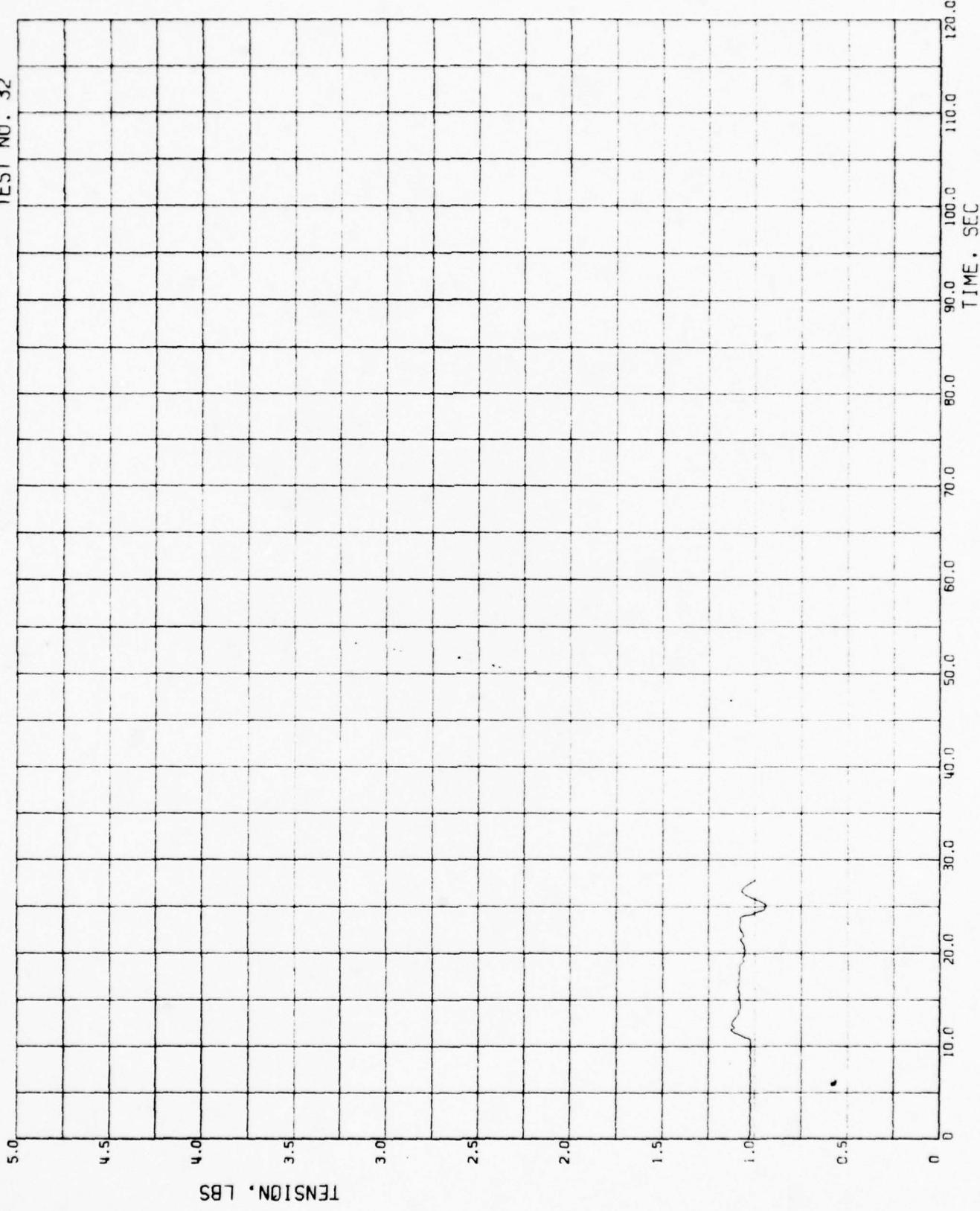
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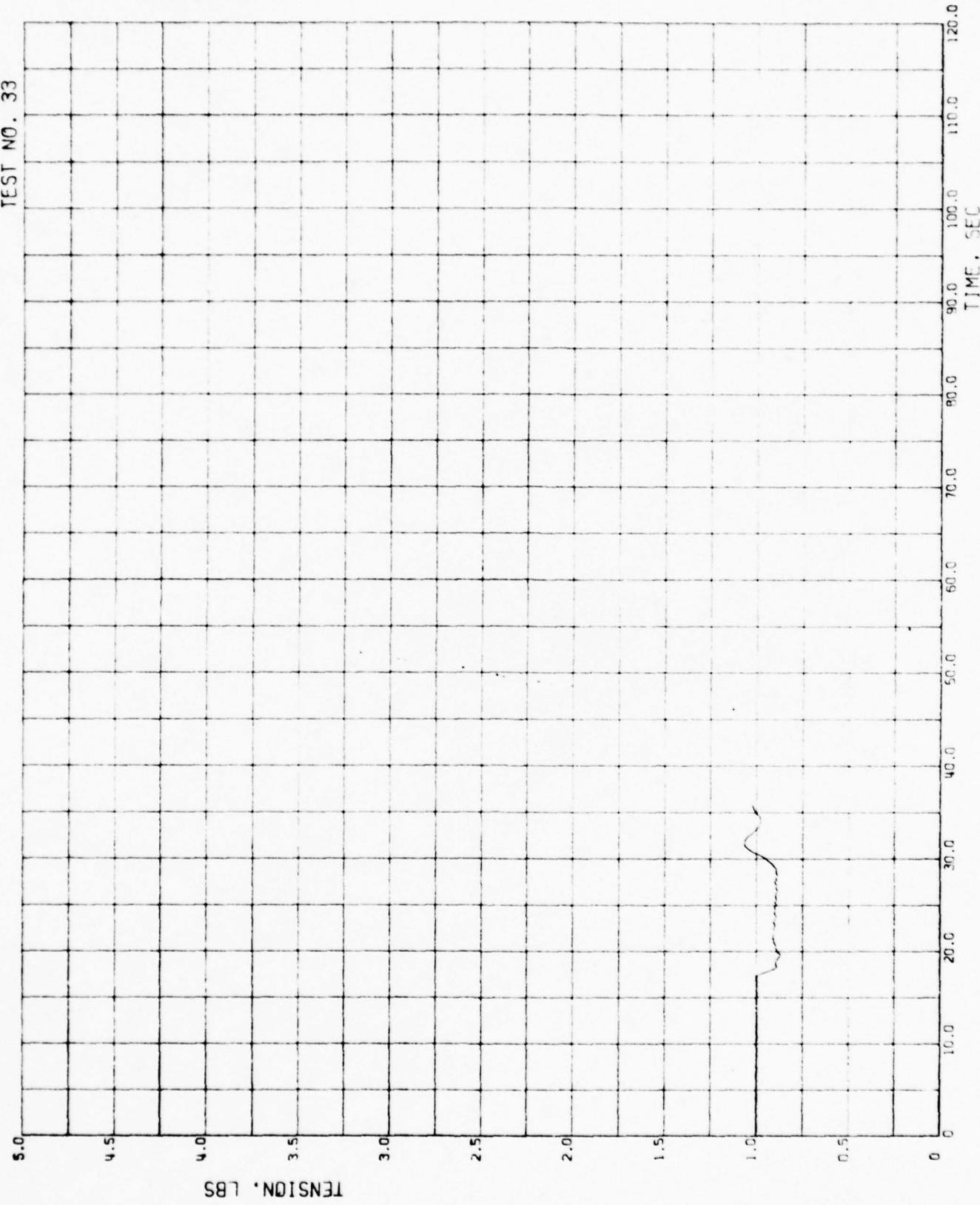
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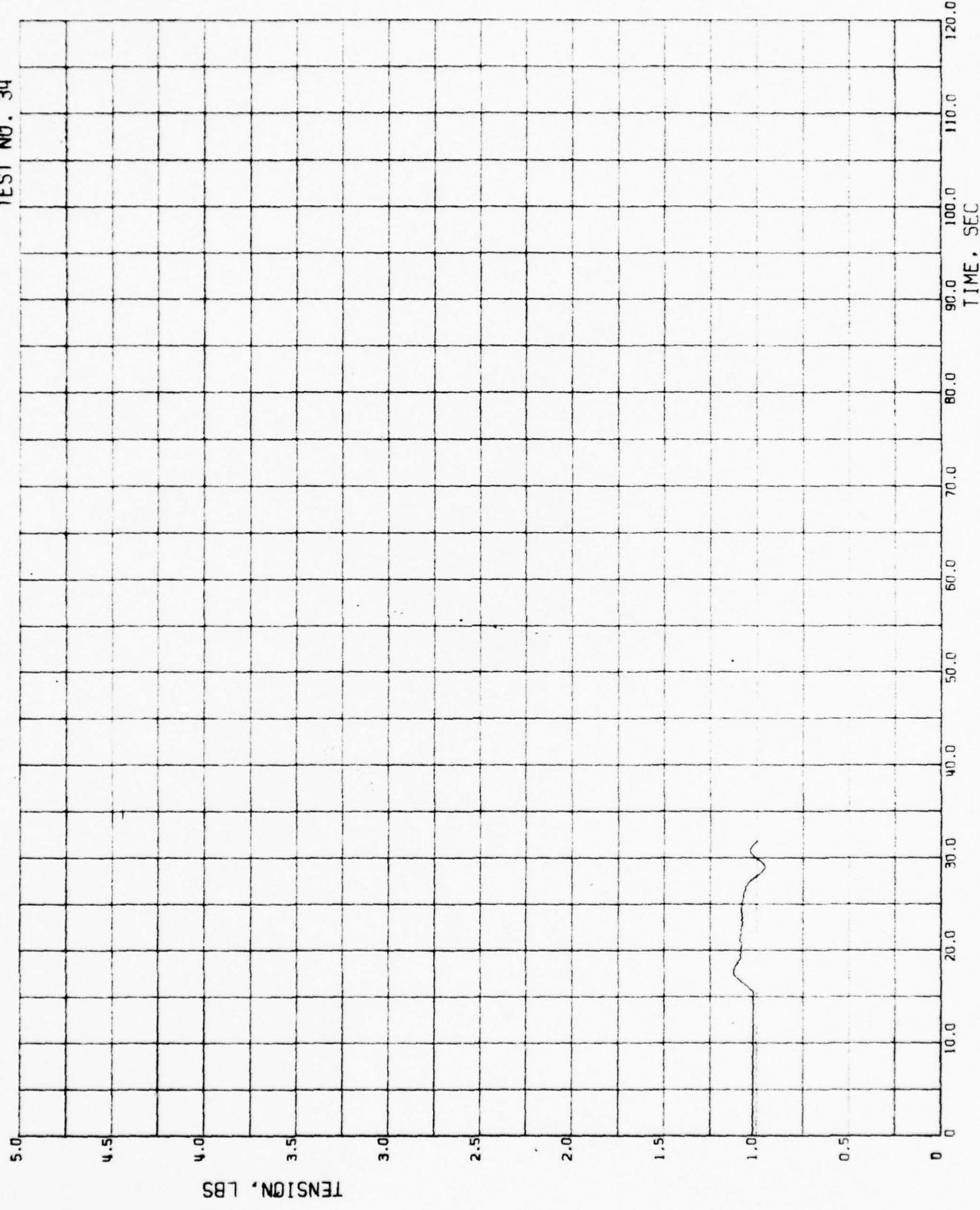
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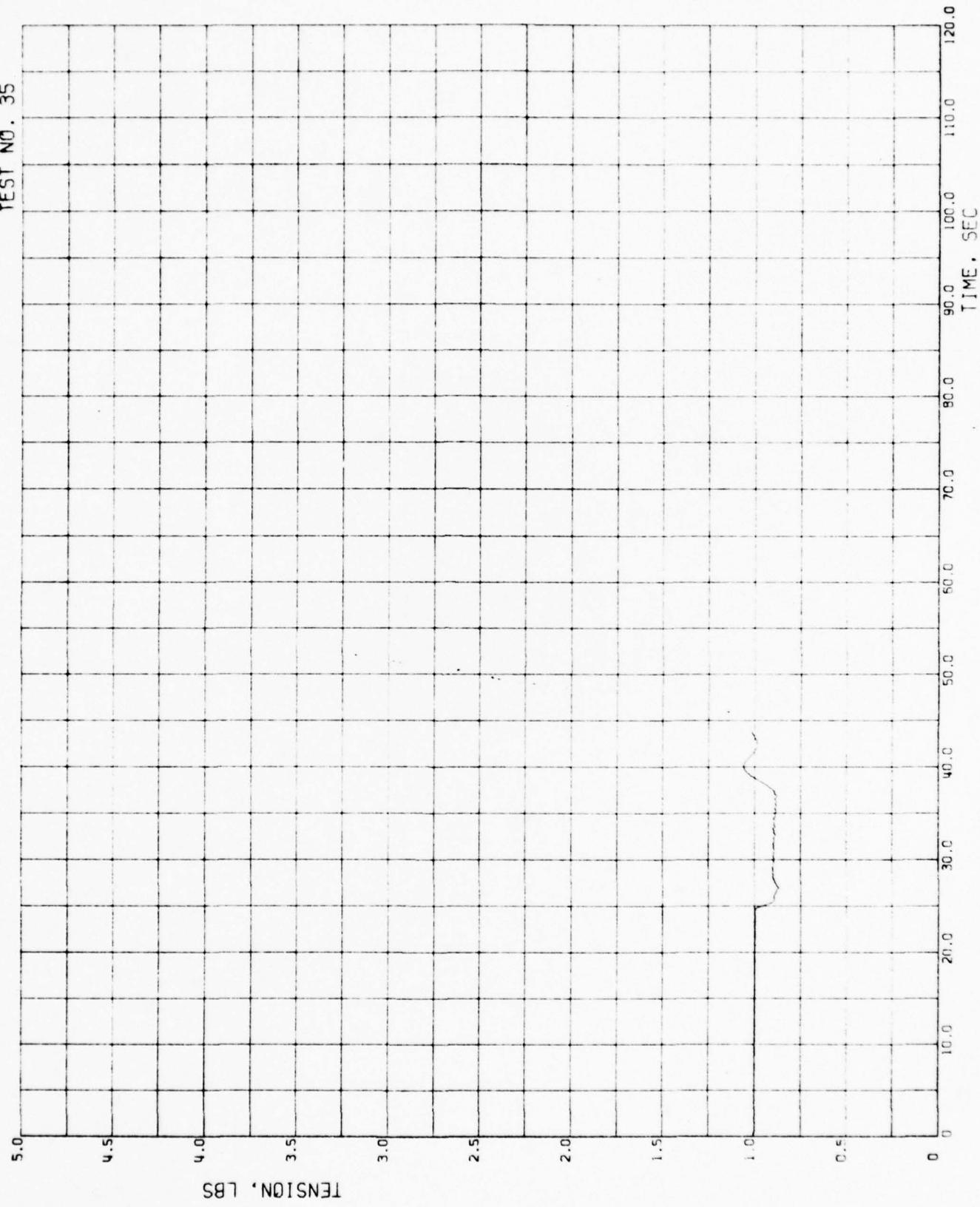
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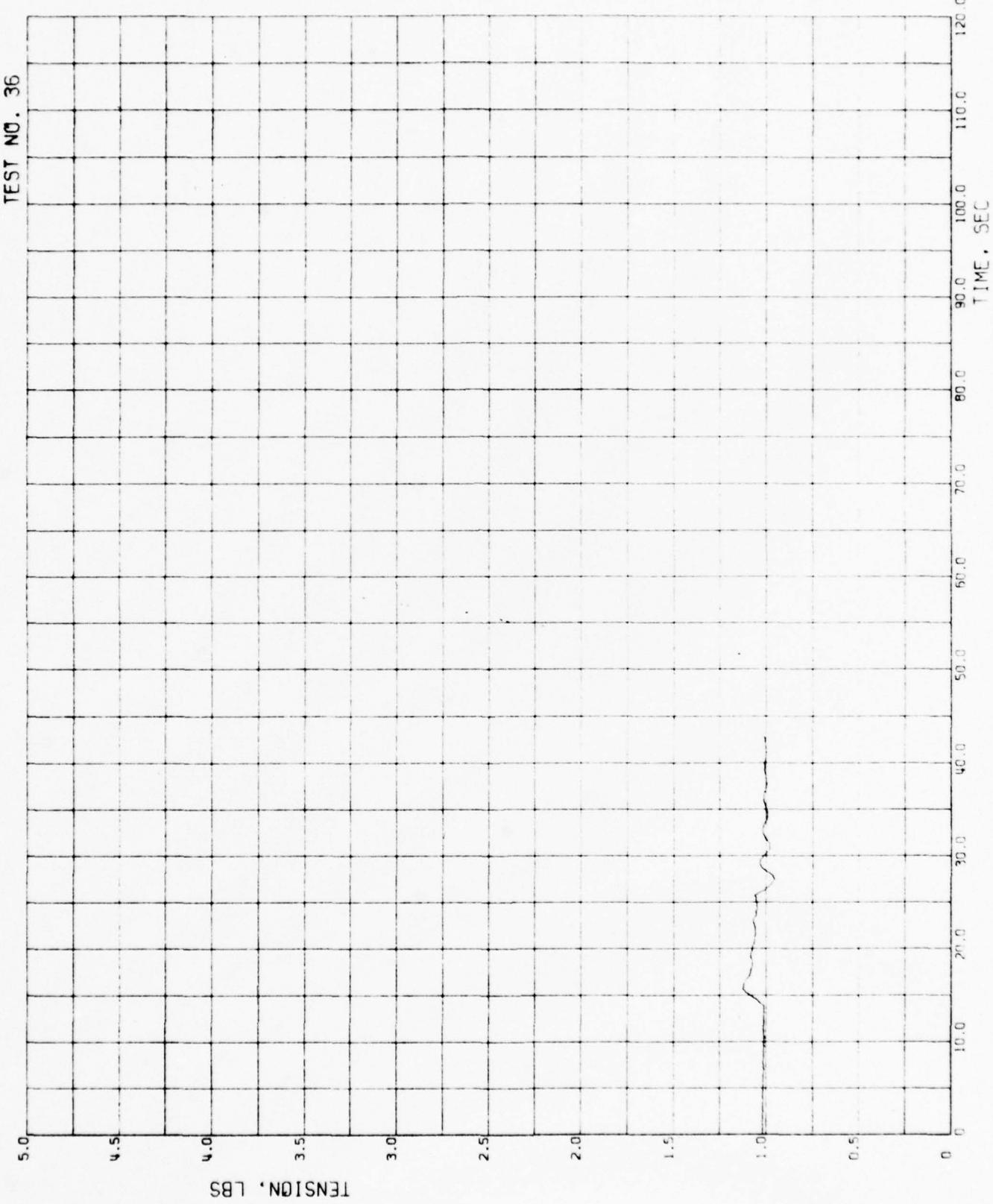
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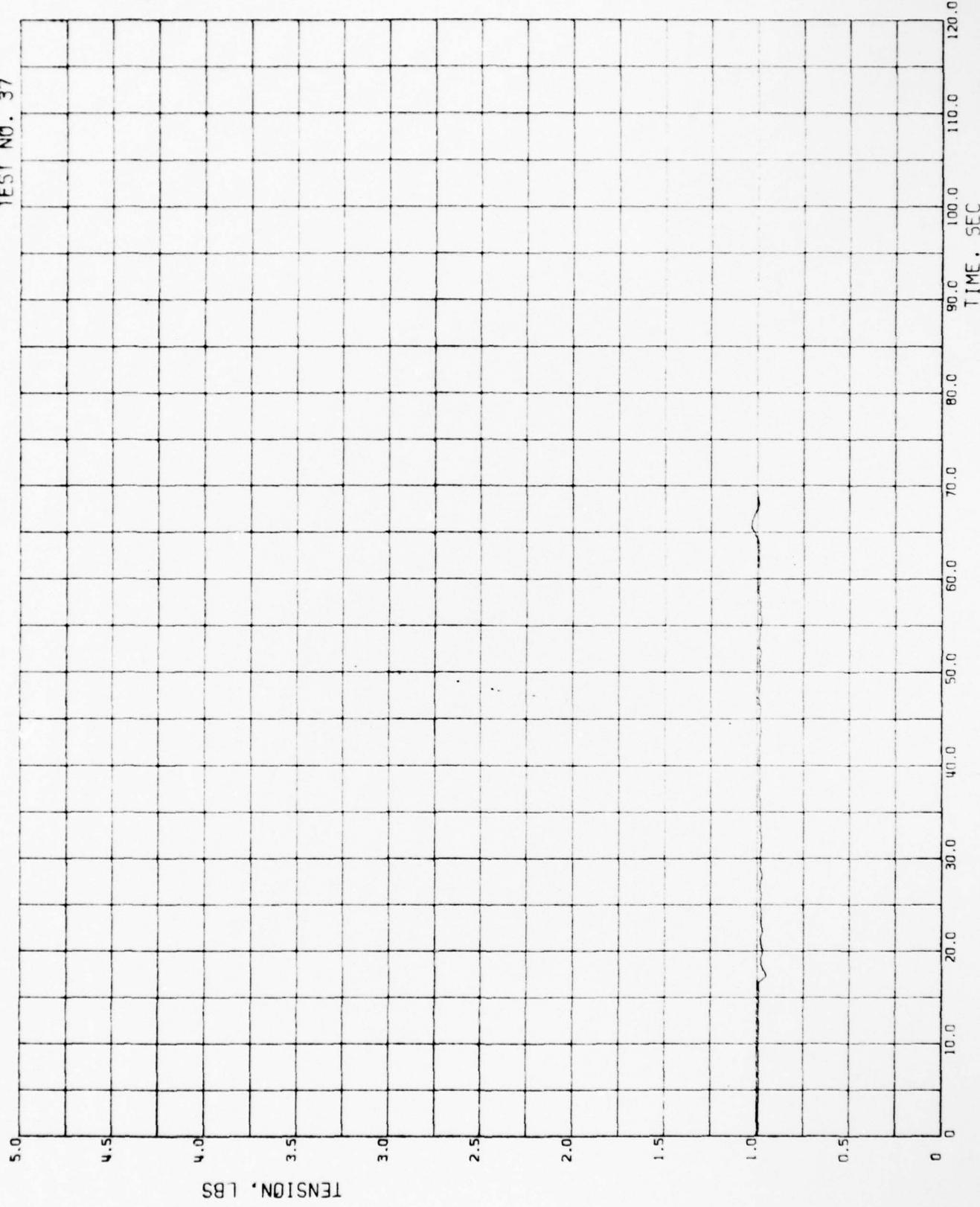
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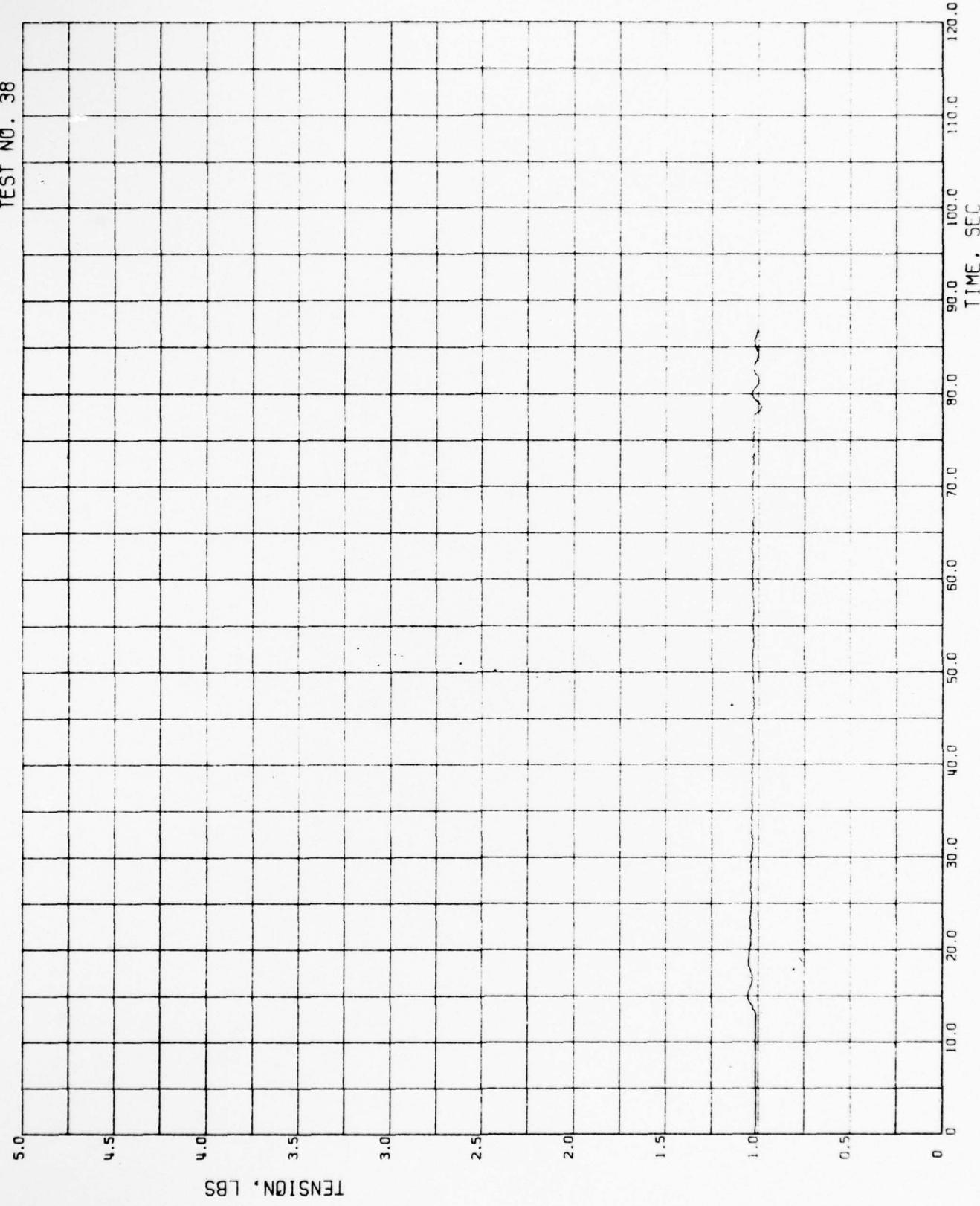
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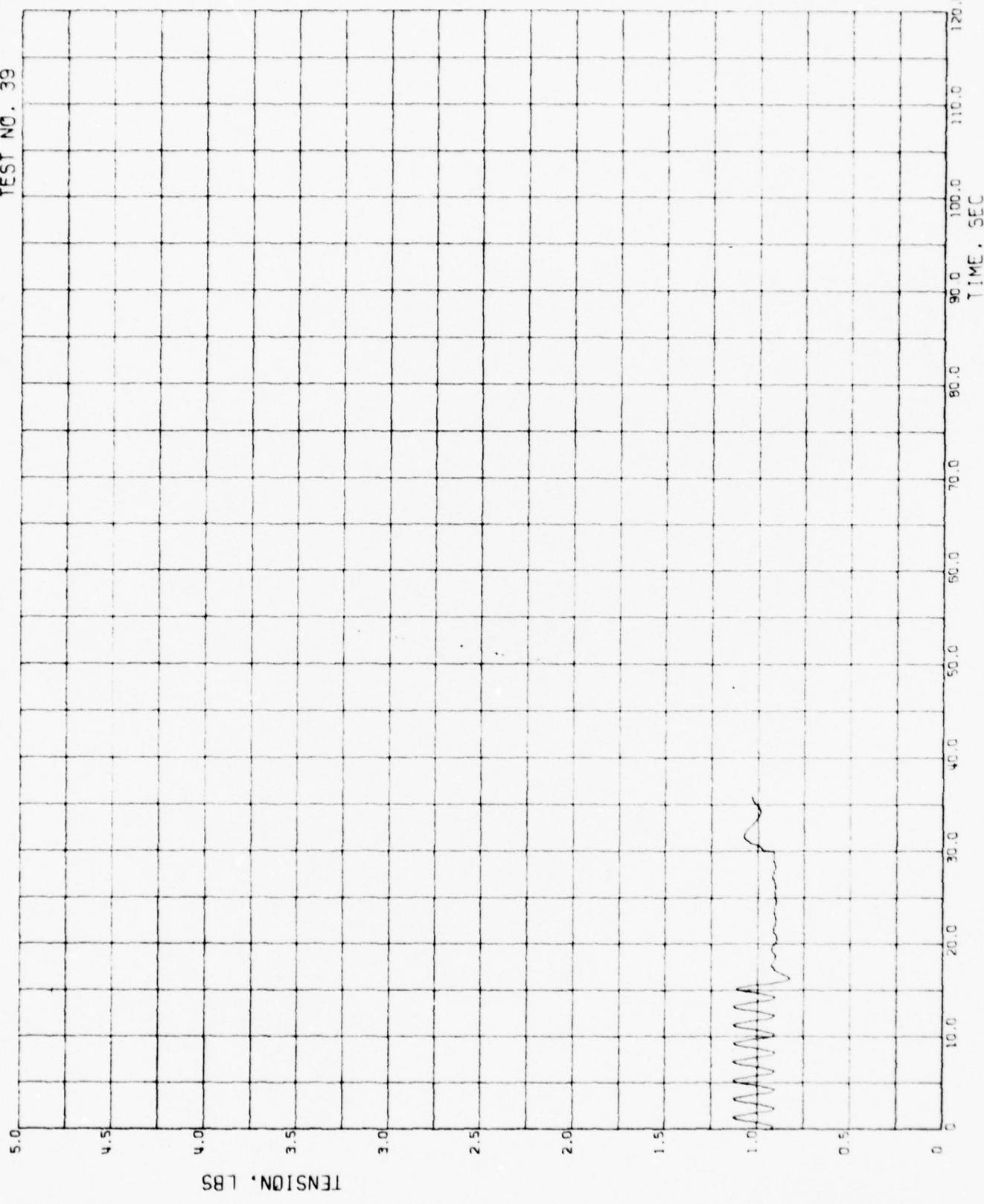
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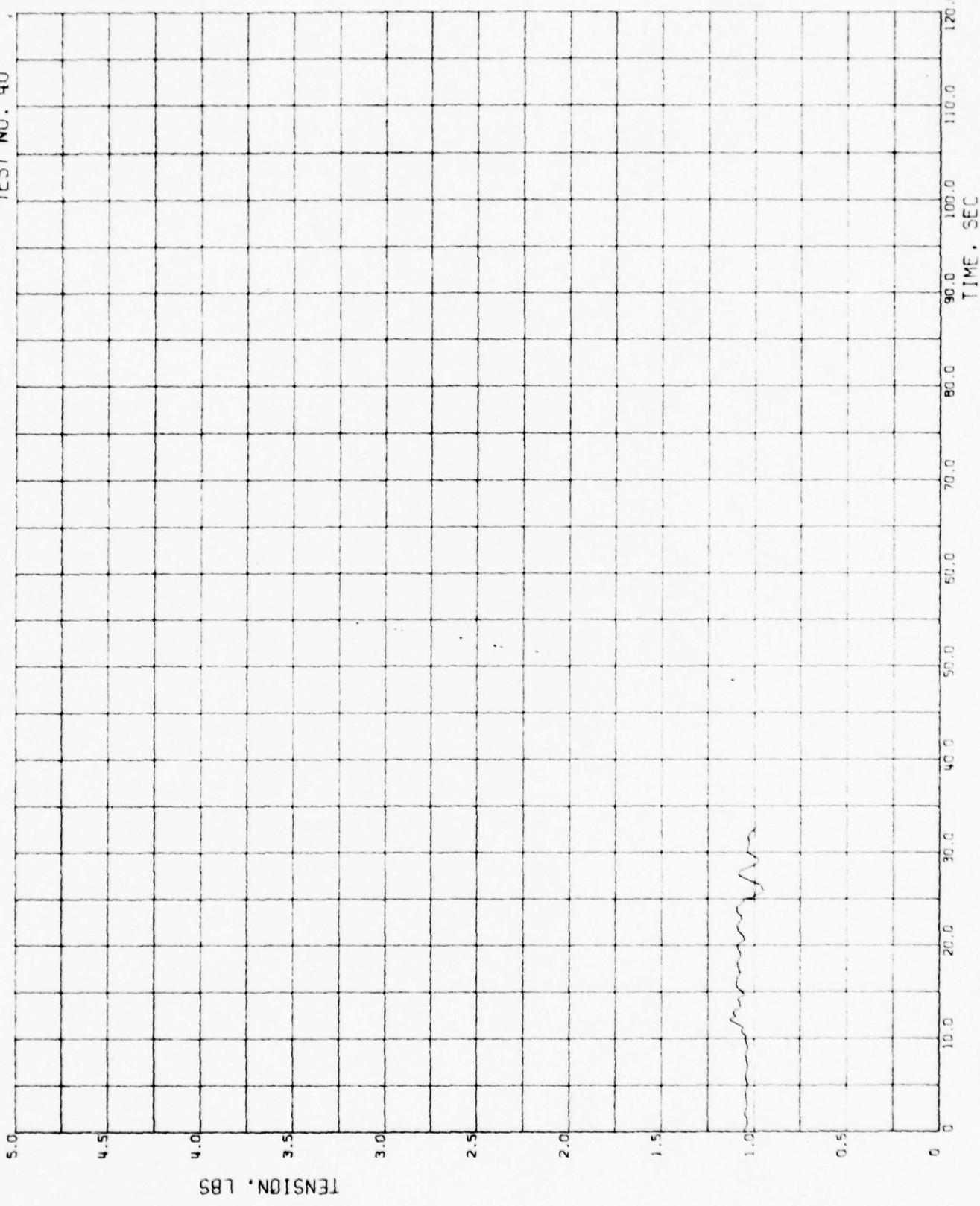
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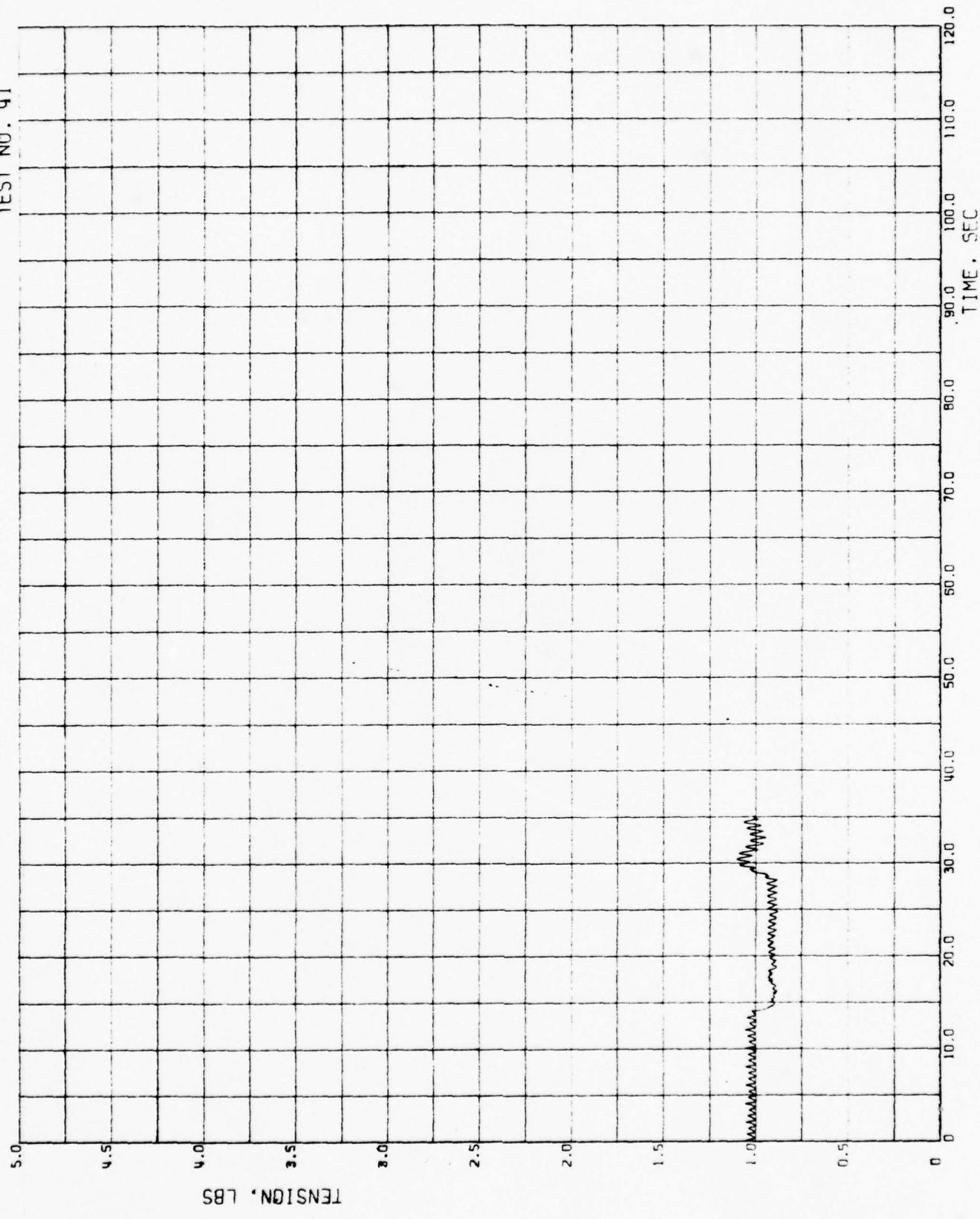
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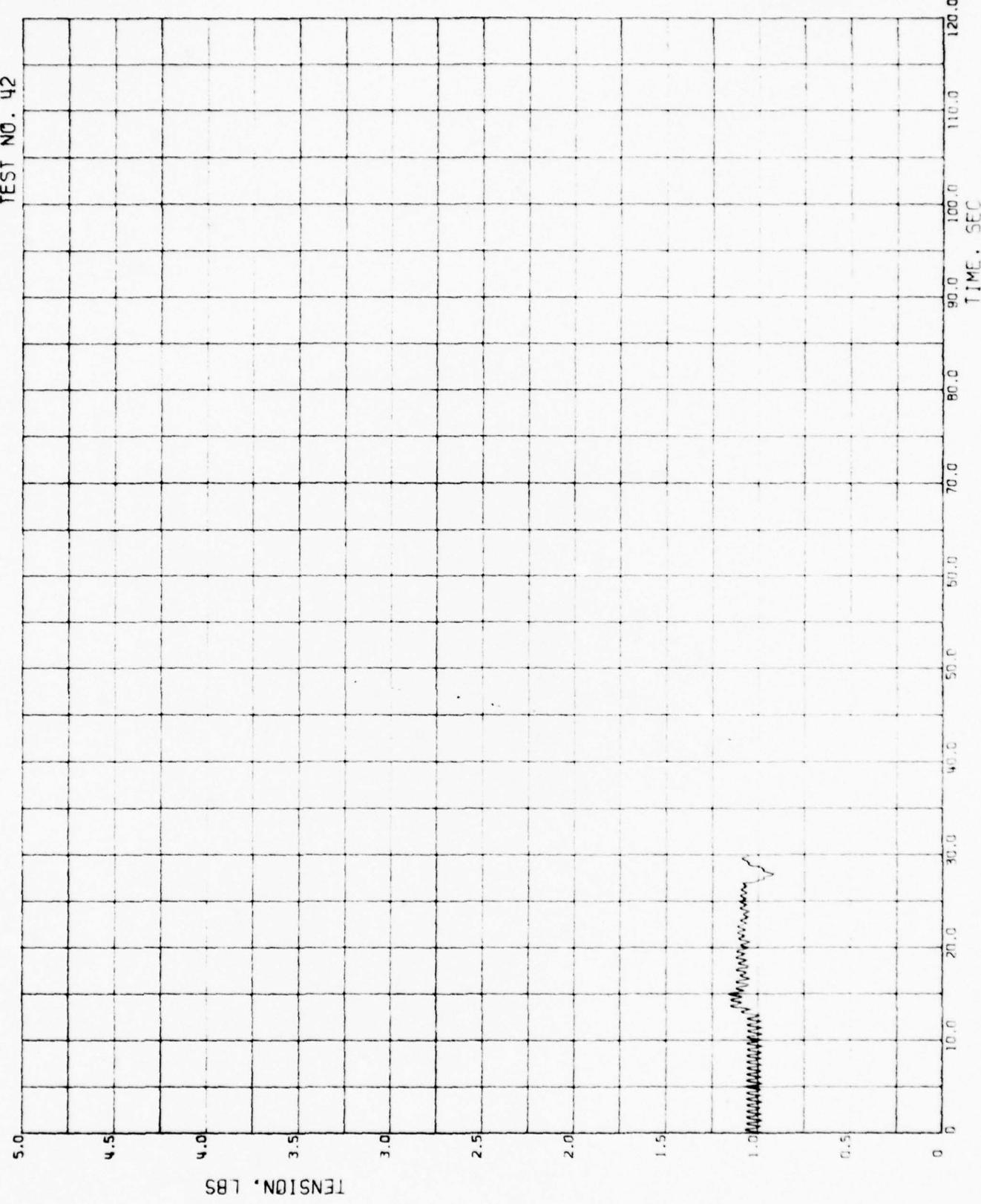
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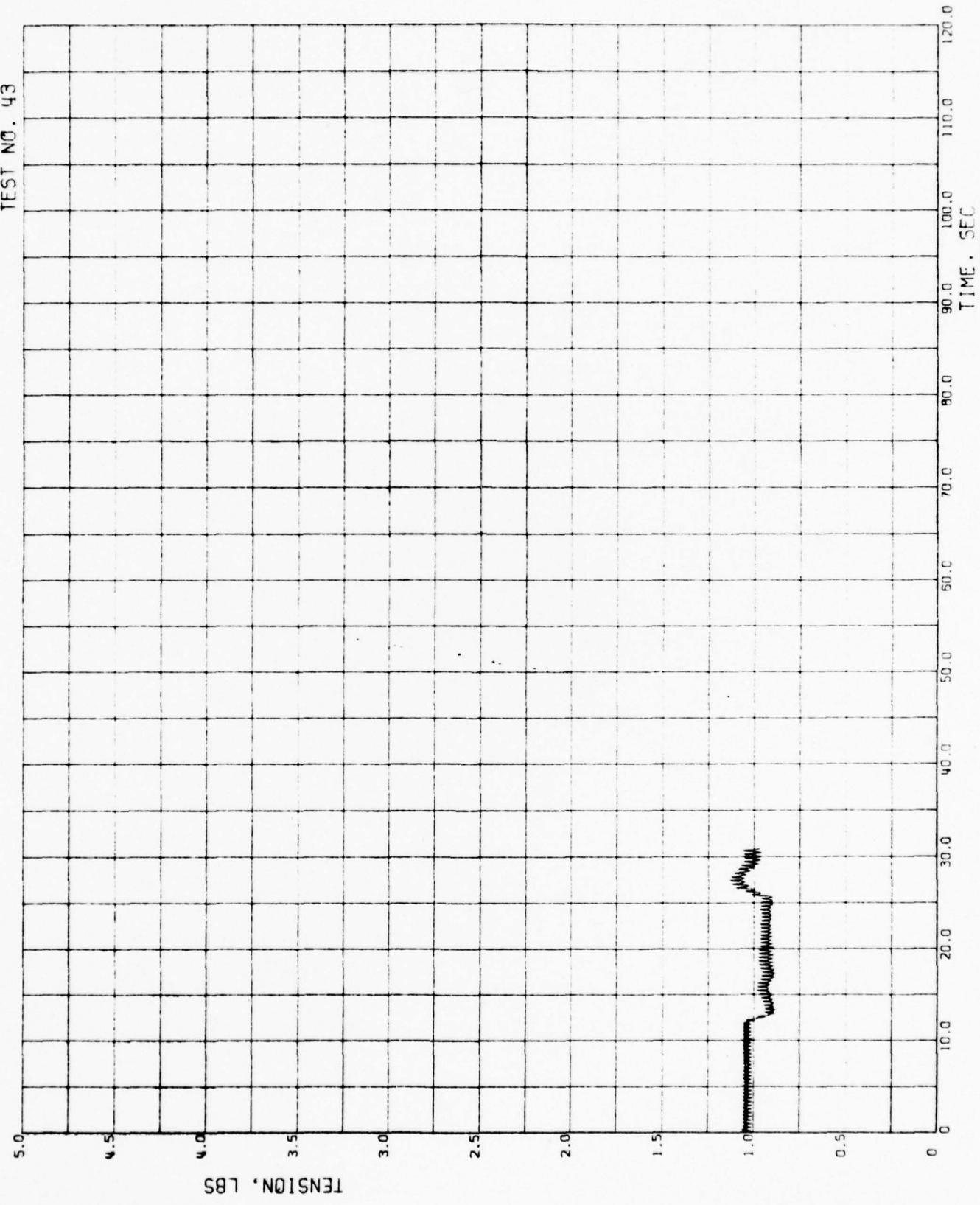
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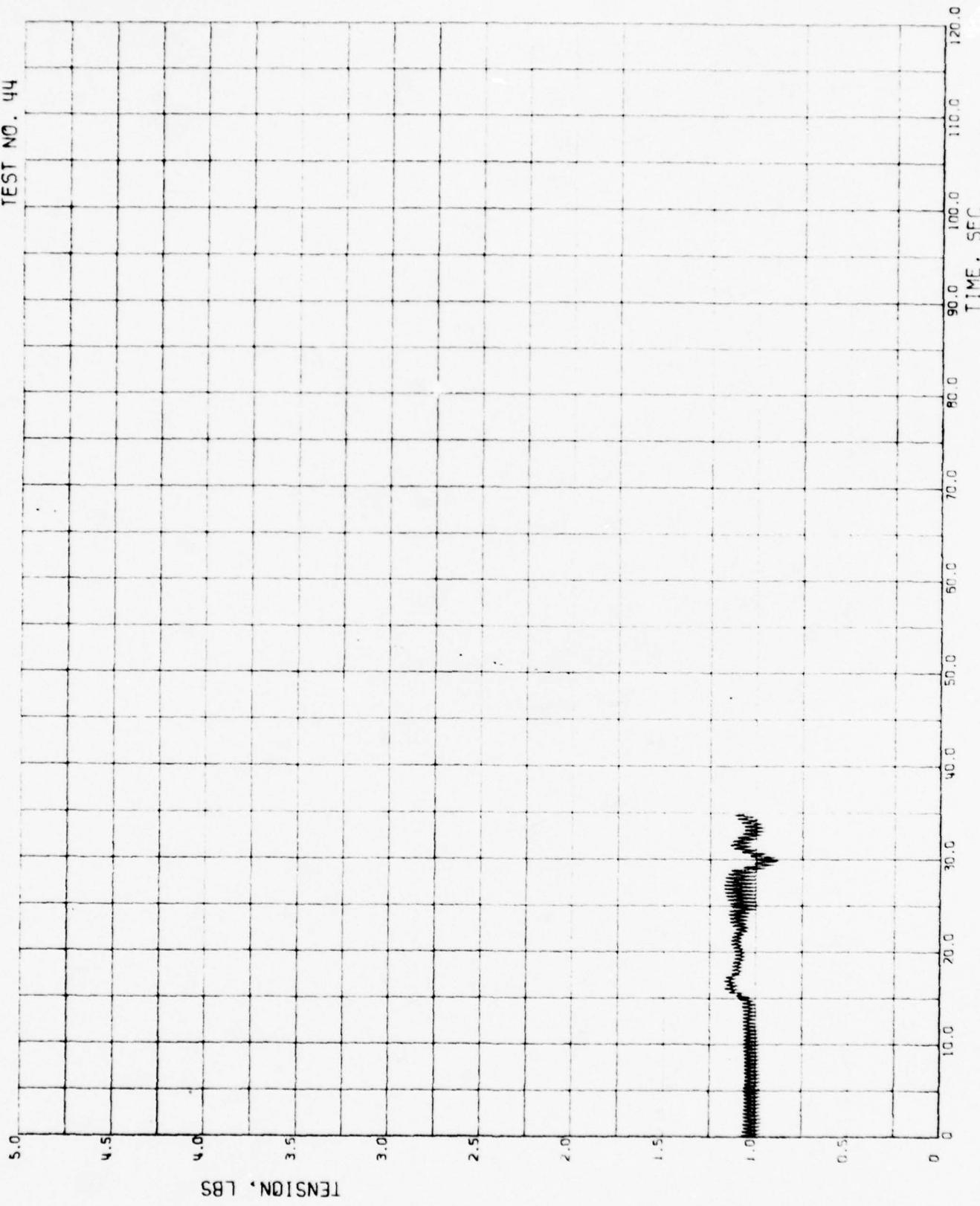
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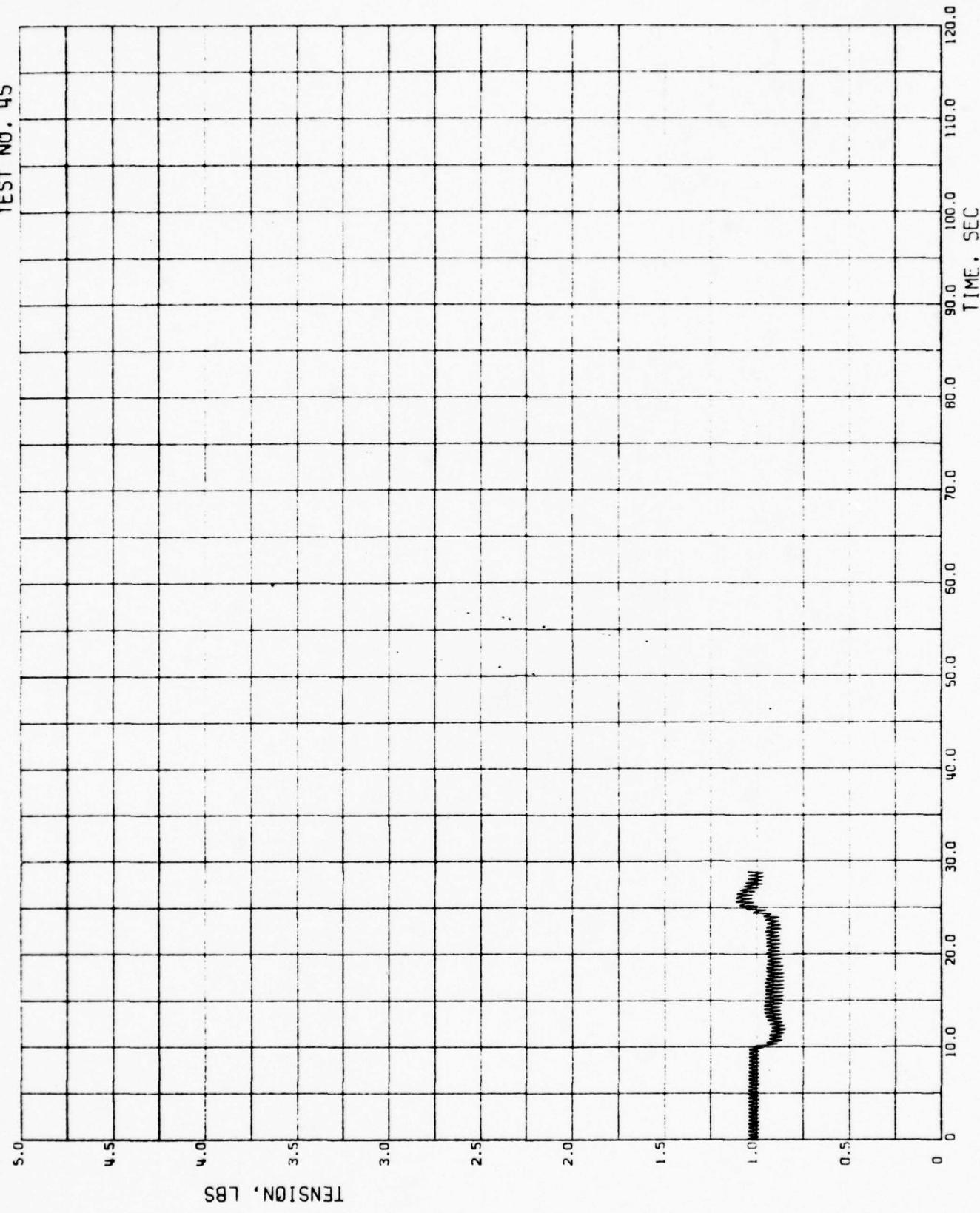
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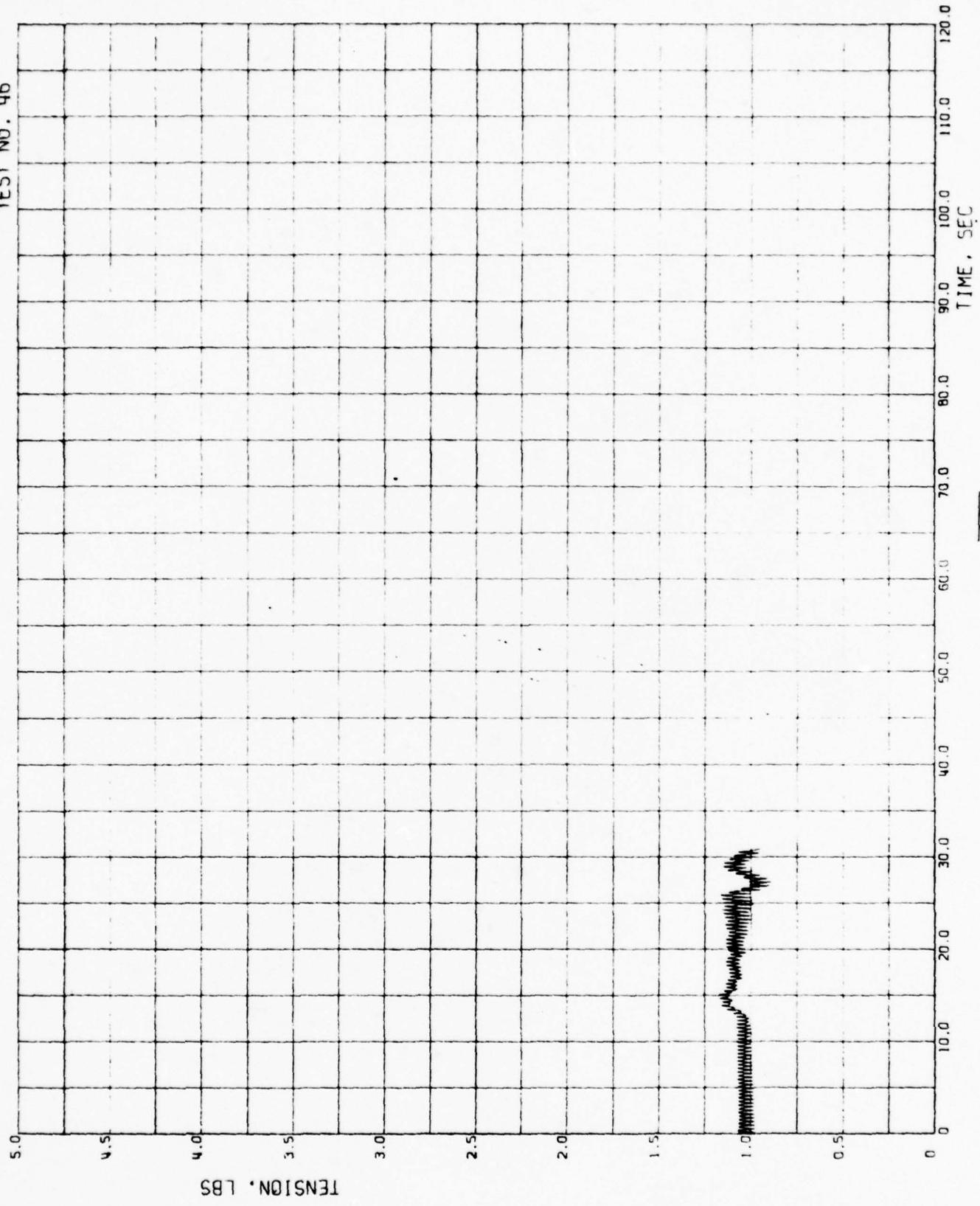
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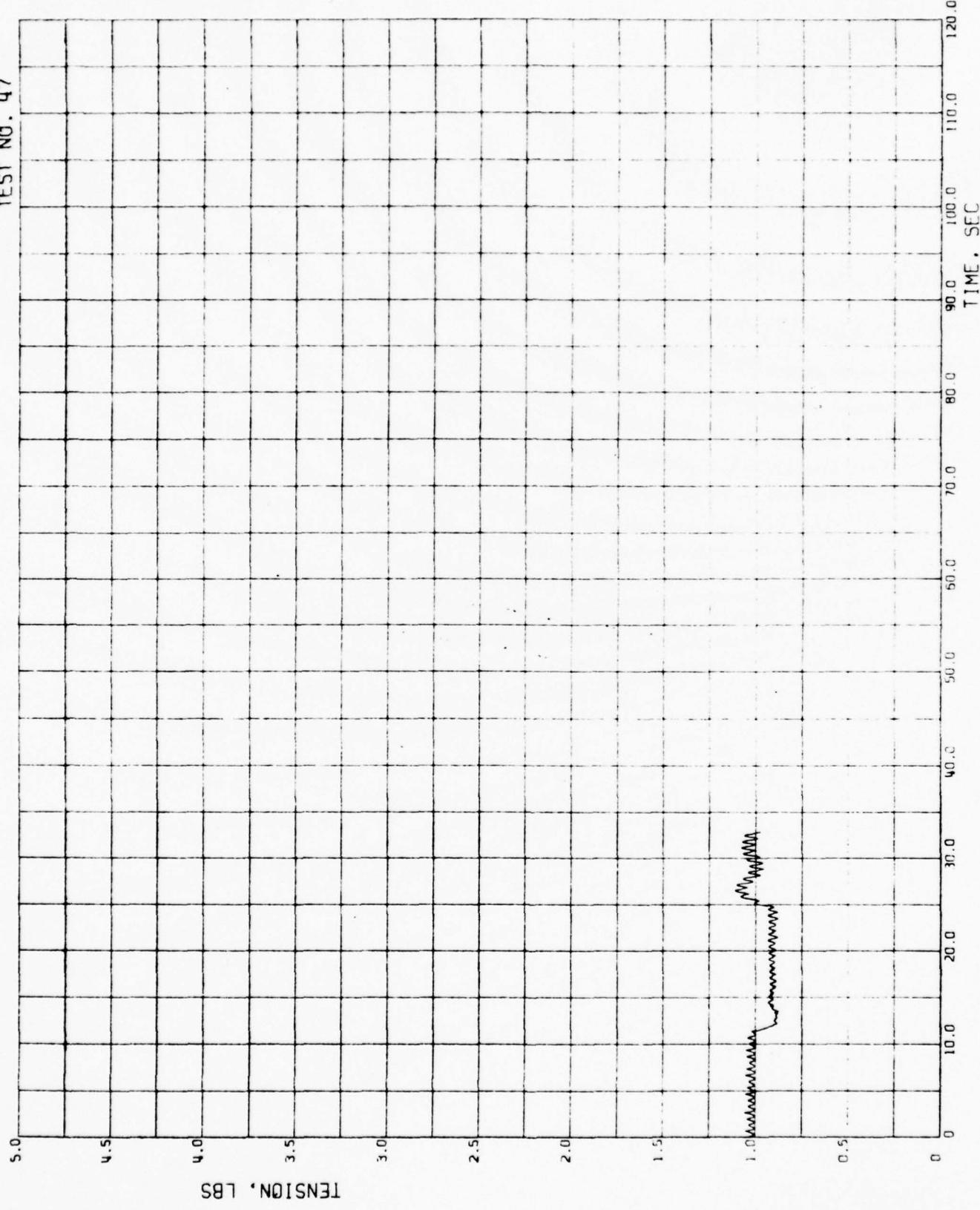
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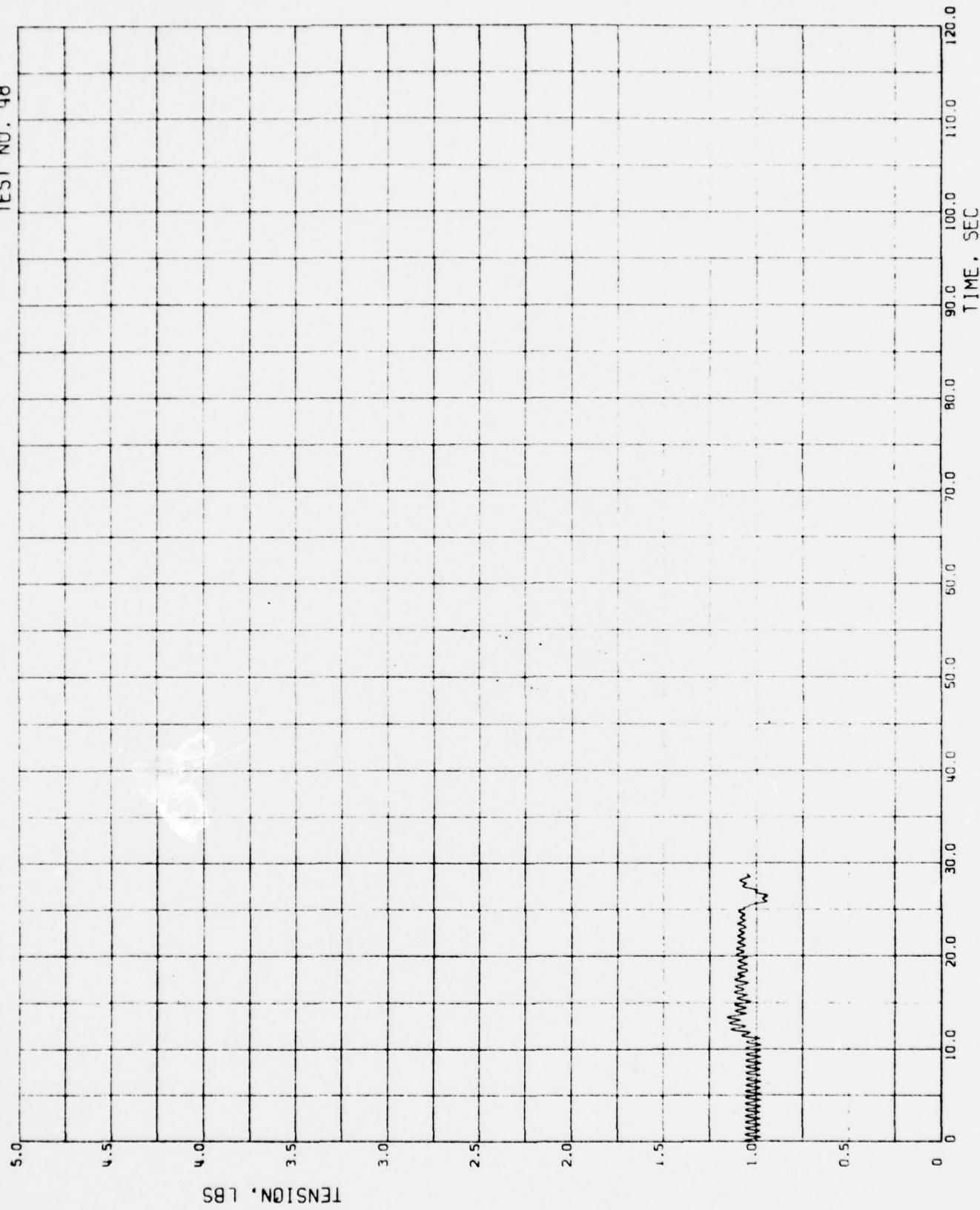
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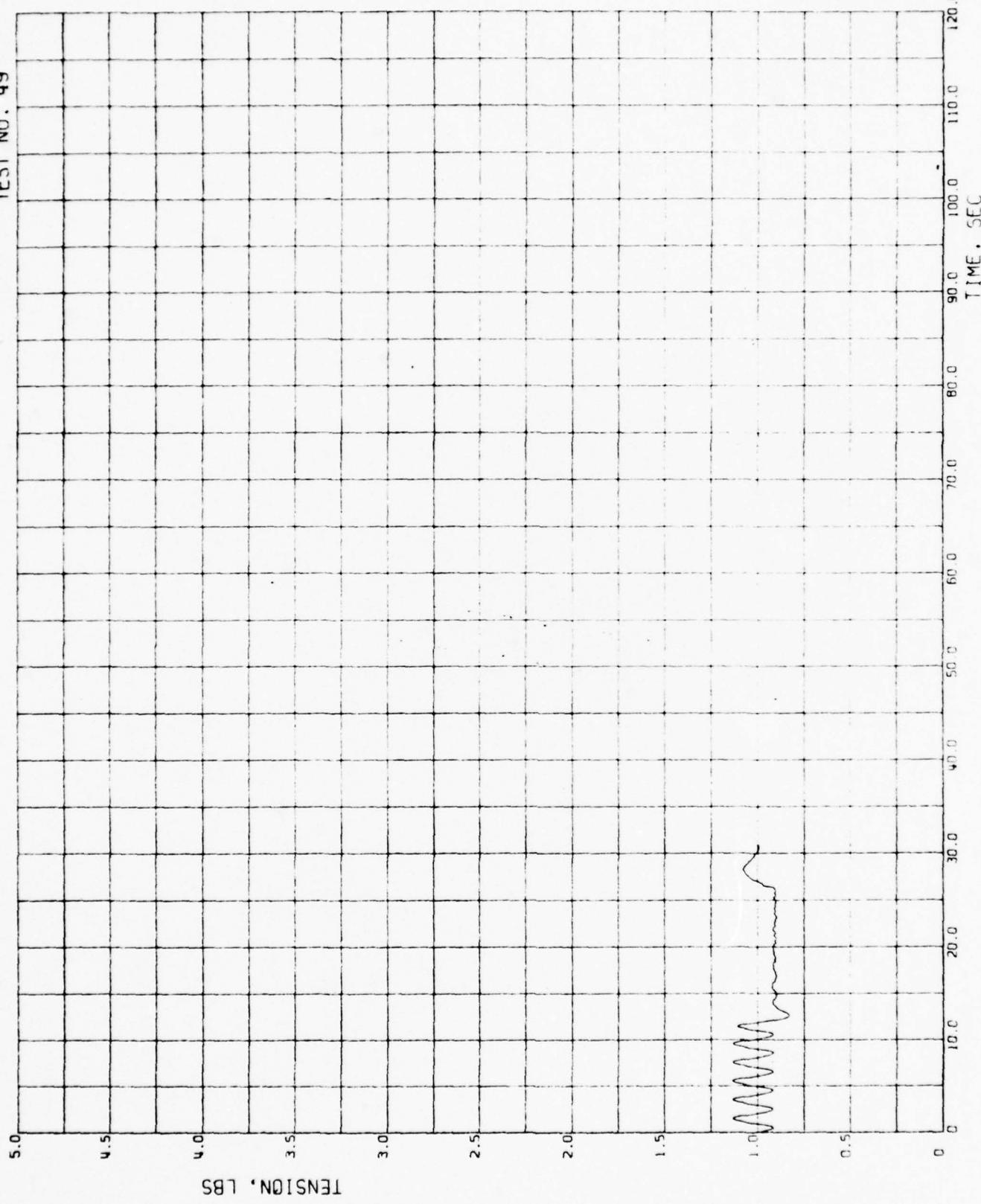
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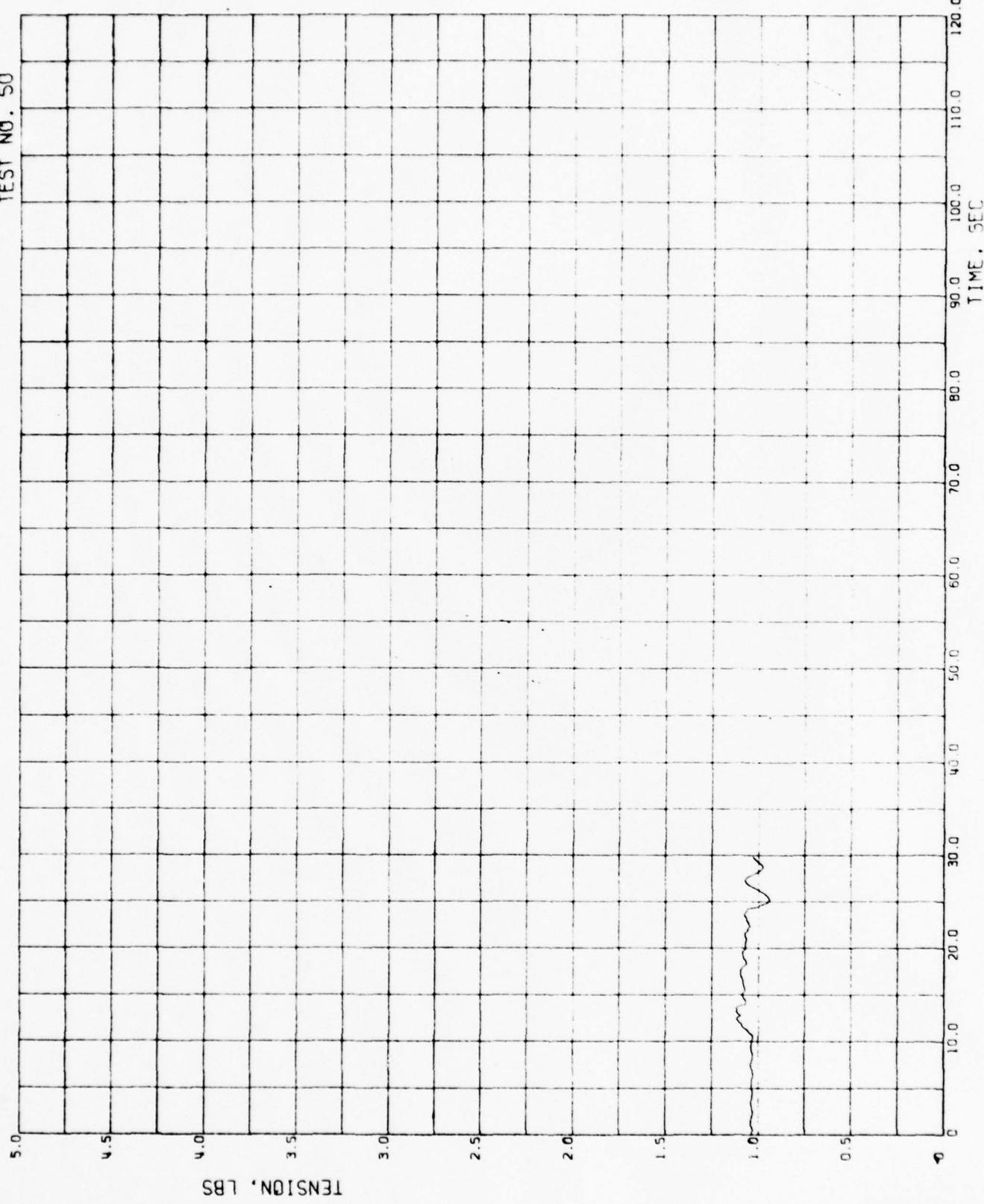
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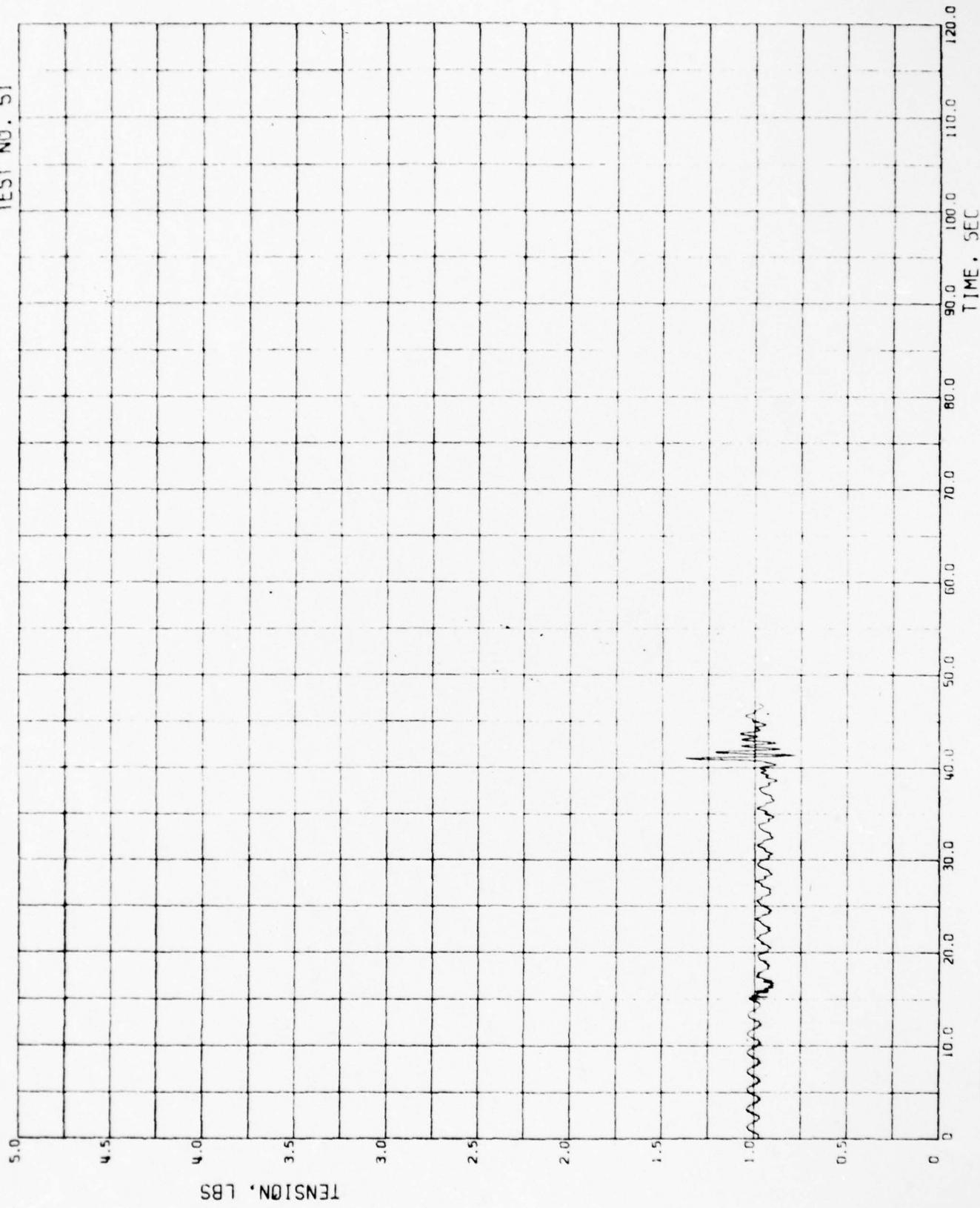
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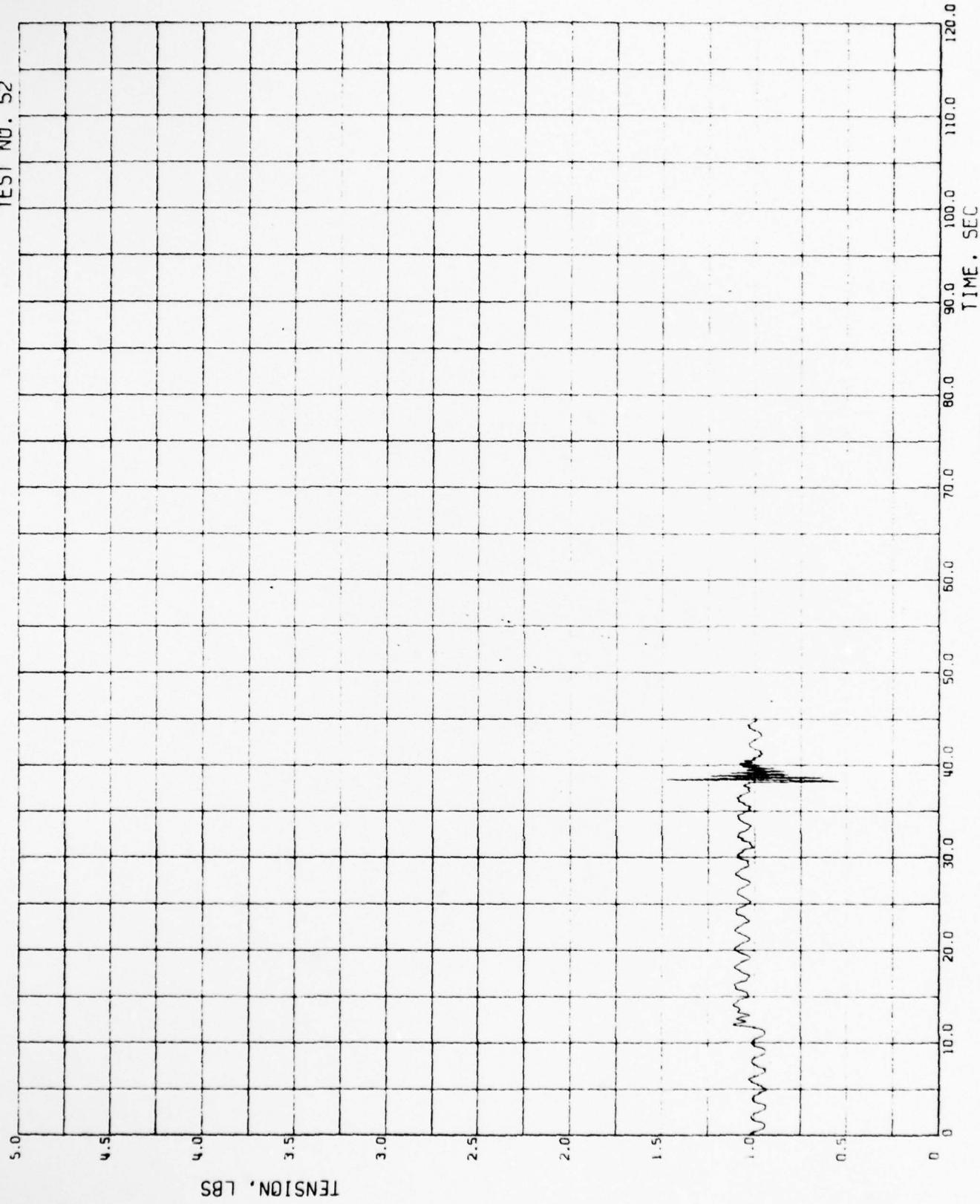
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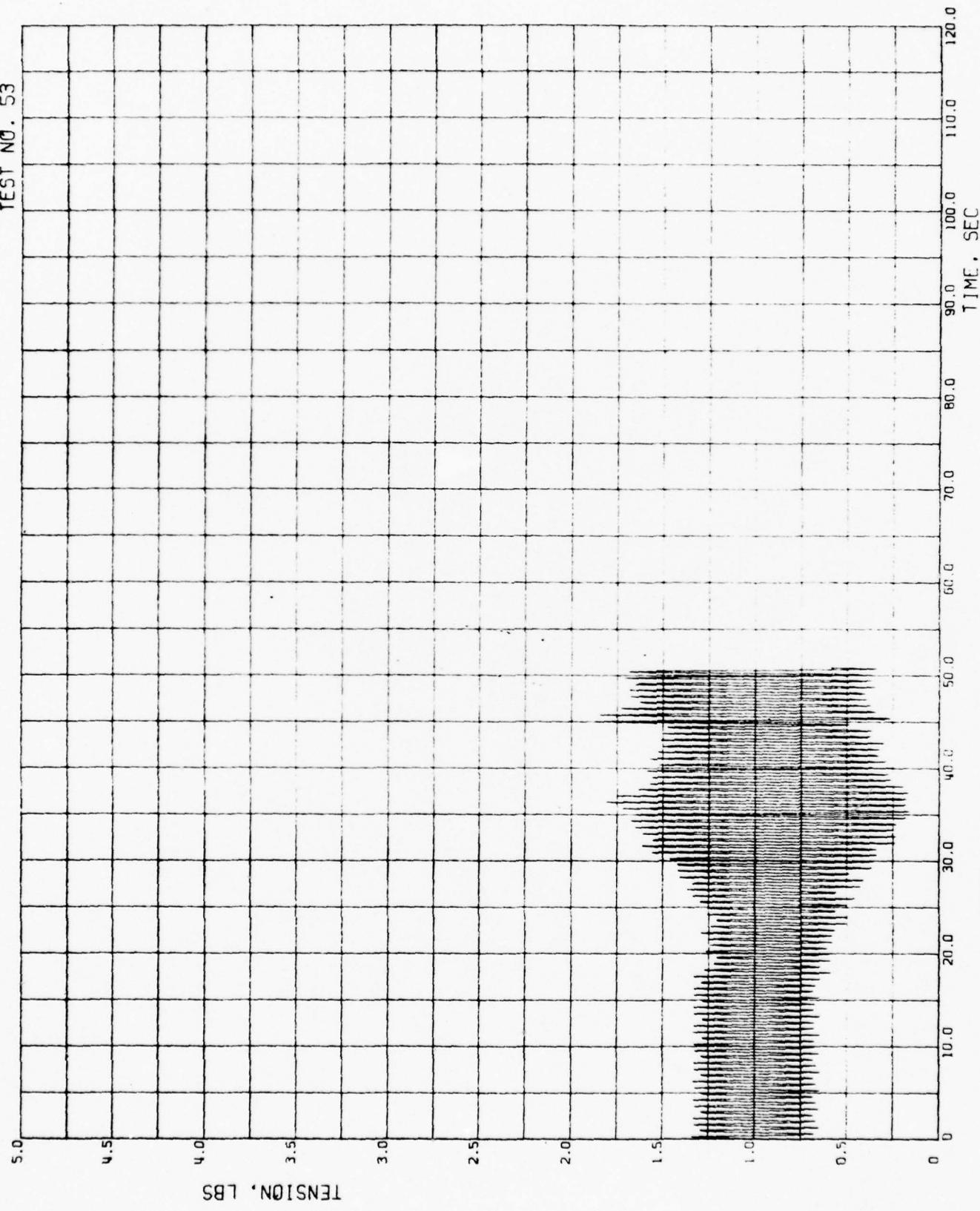
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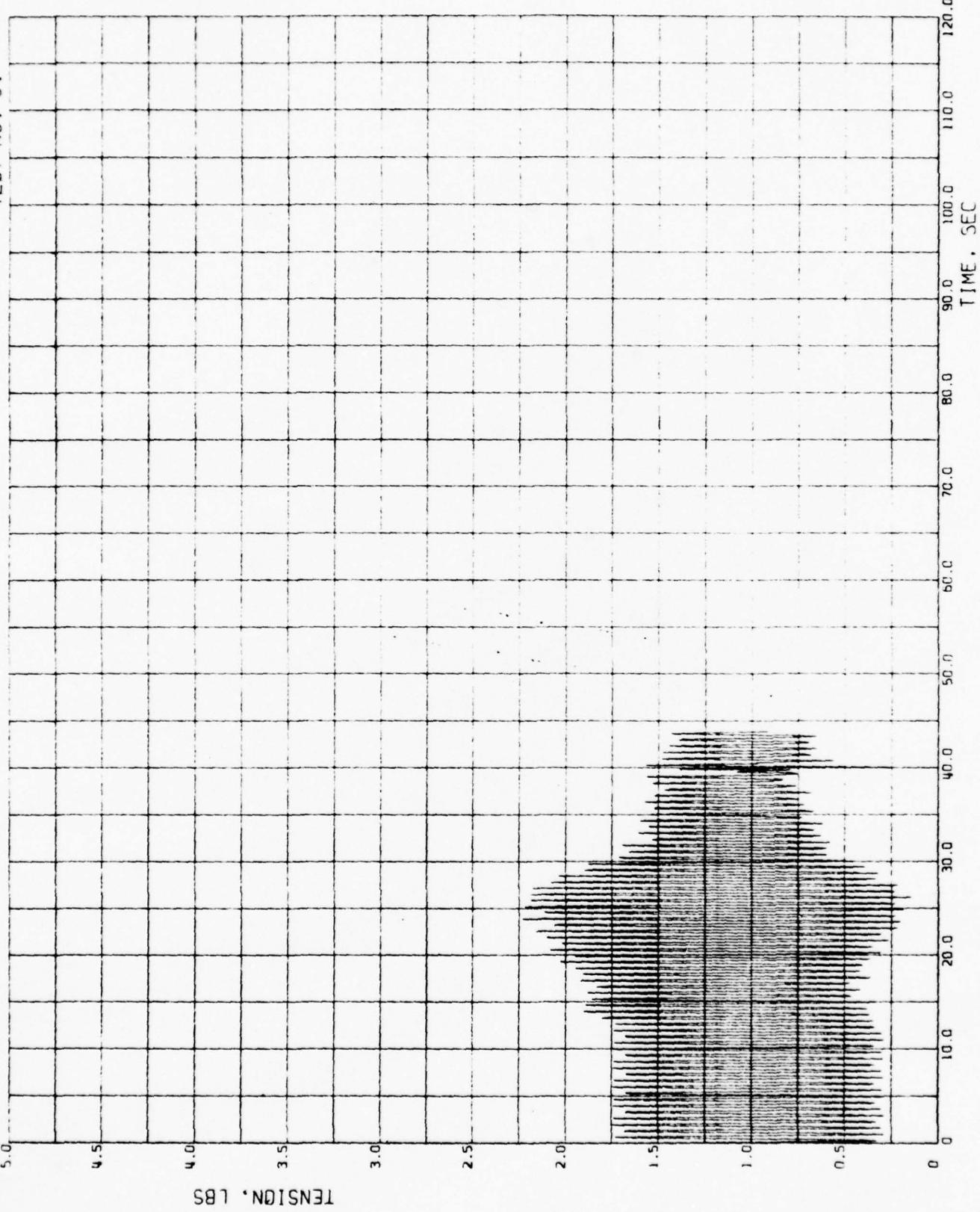
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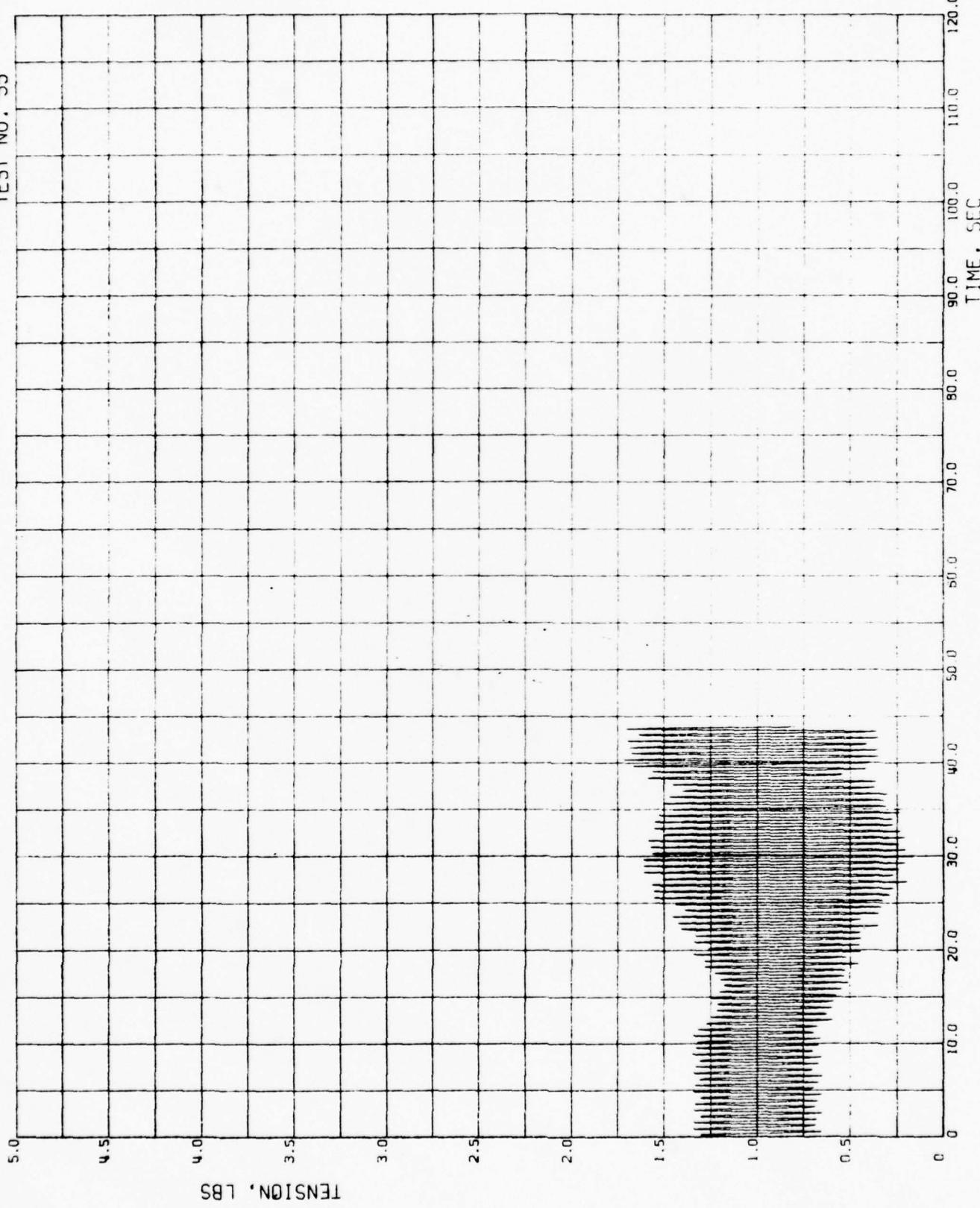
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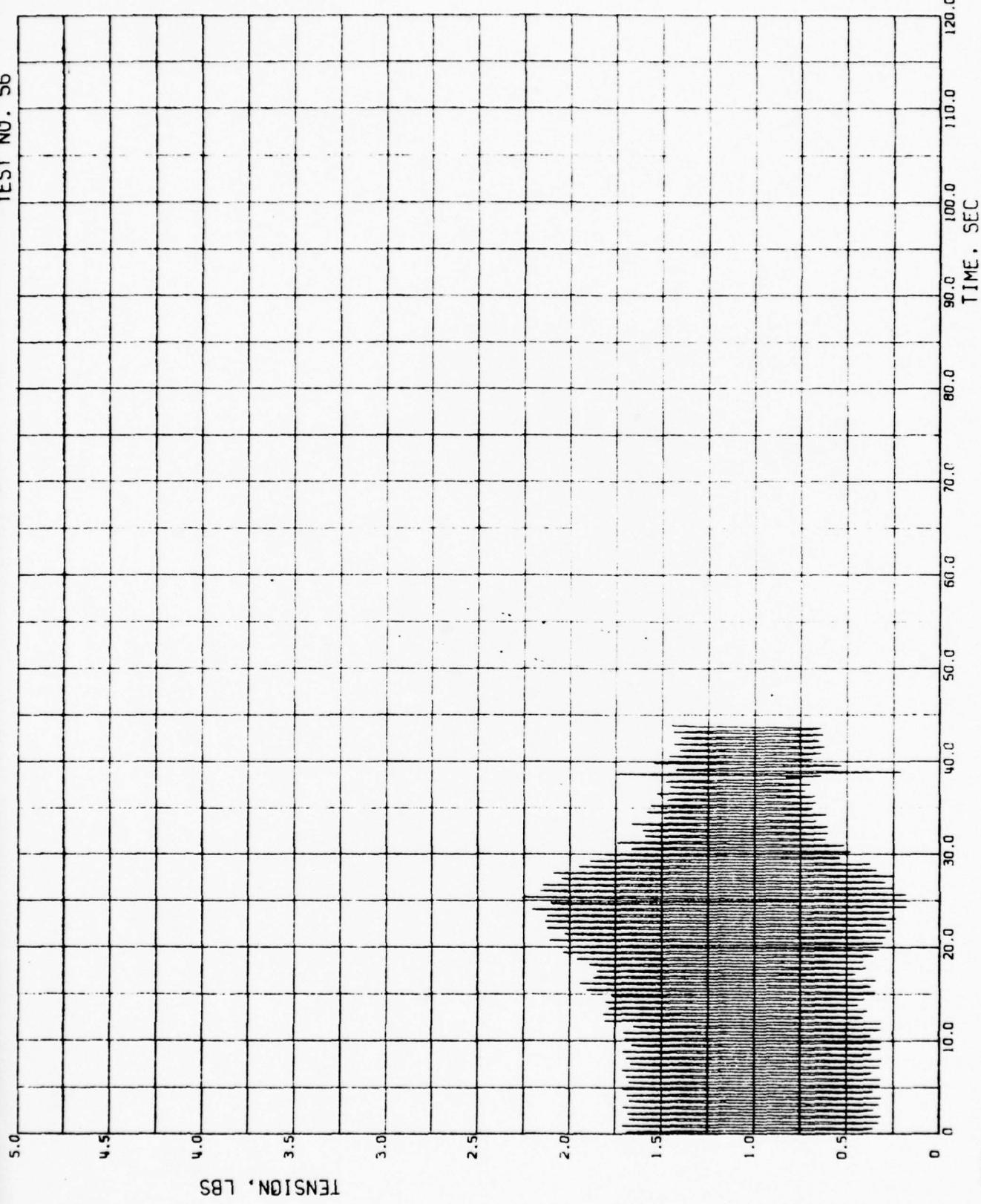
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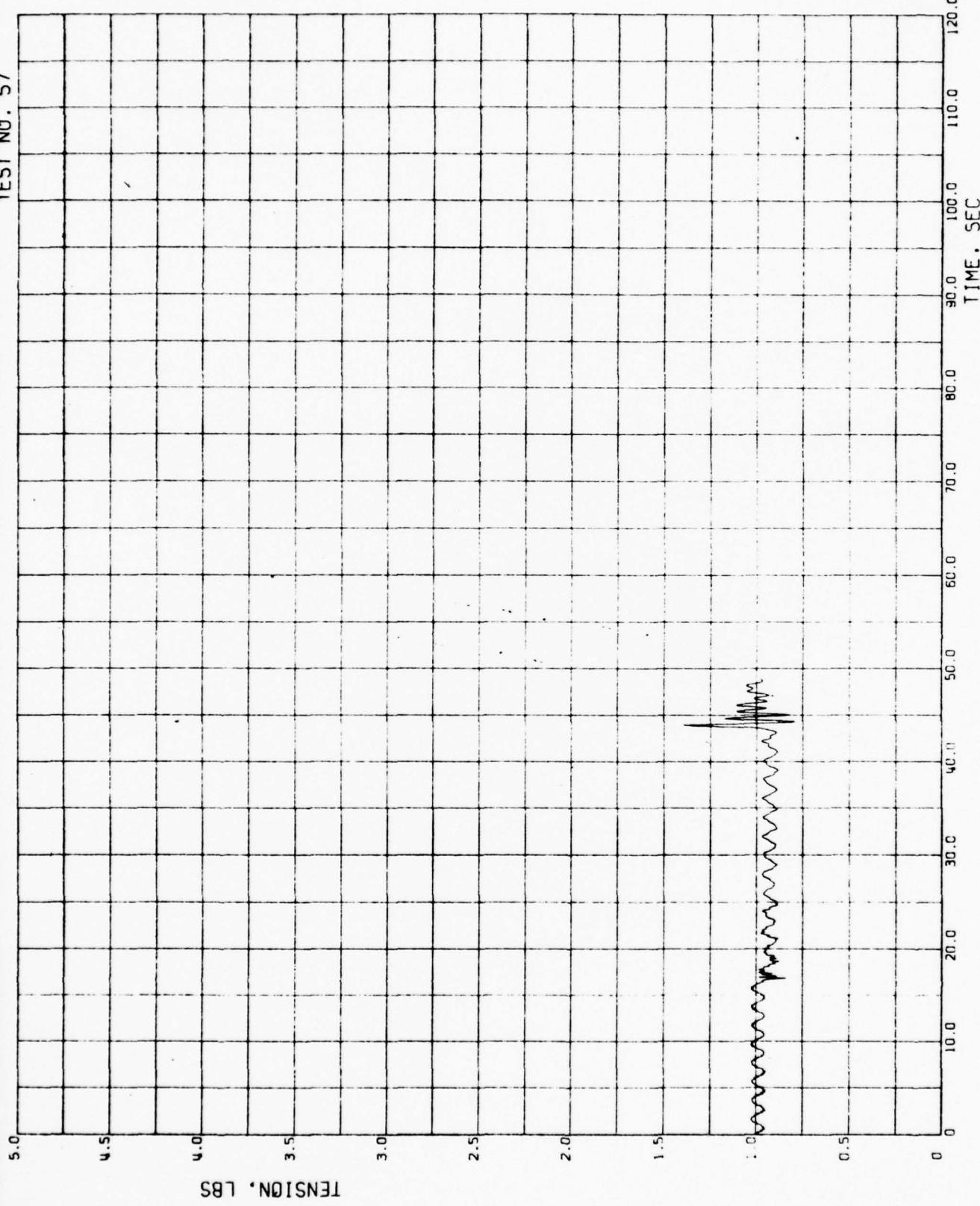
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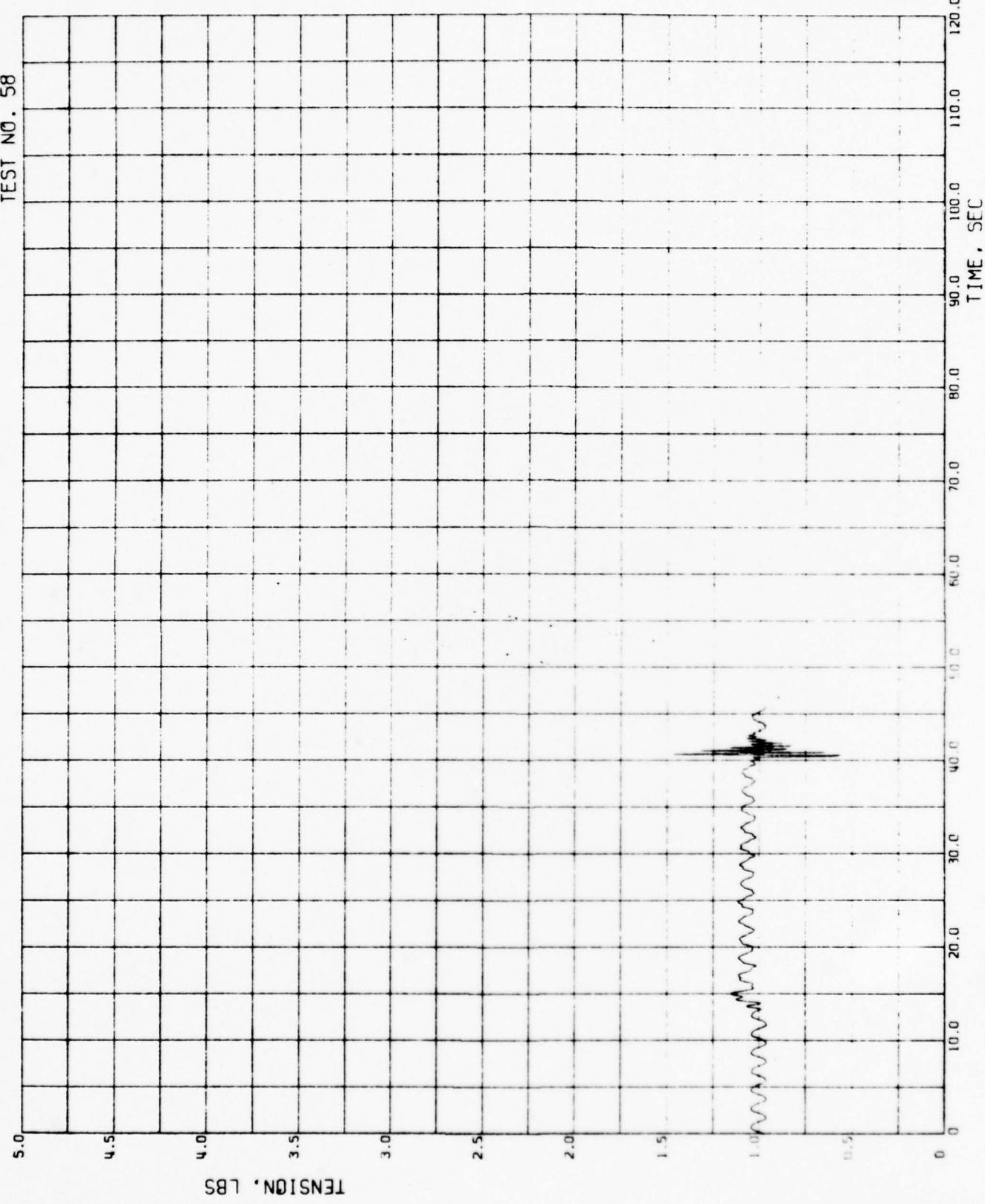
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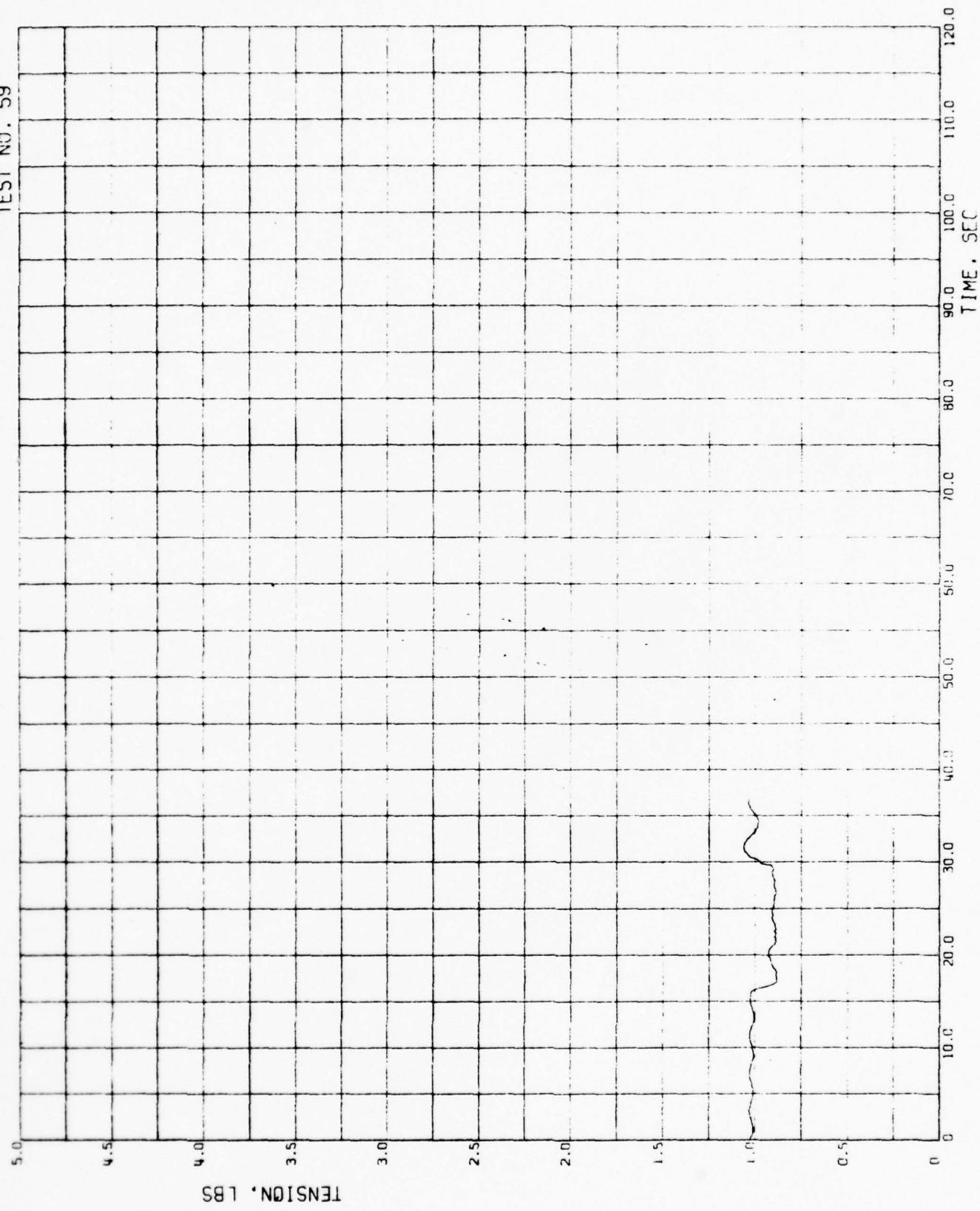
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TEST NO. 58



TEST NO. 59



TEST NO. 60

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4.0

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3.0

2.5

2.0

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1.0

0.5

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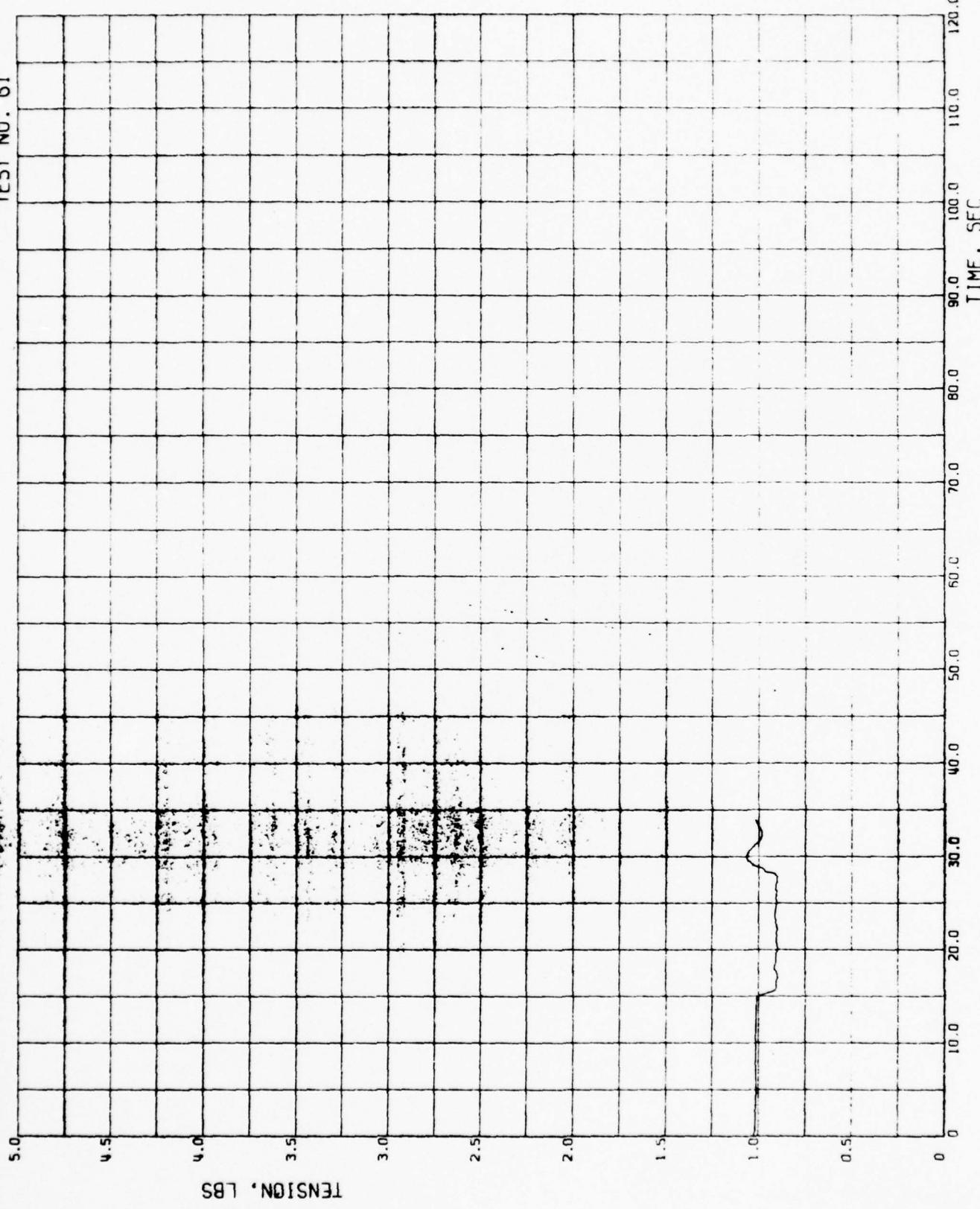
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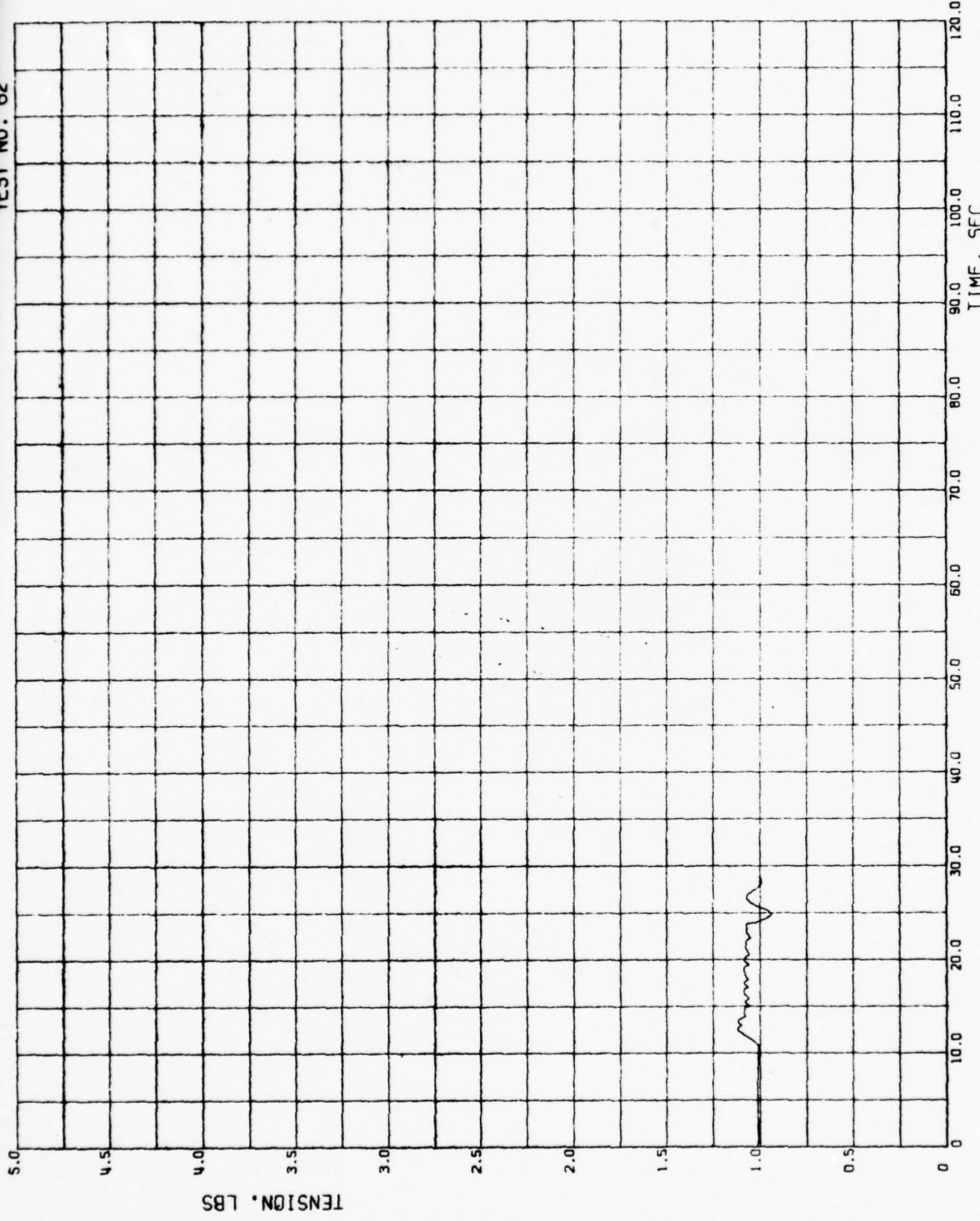
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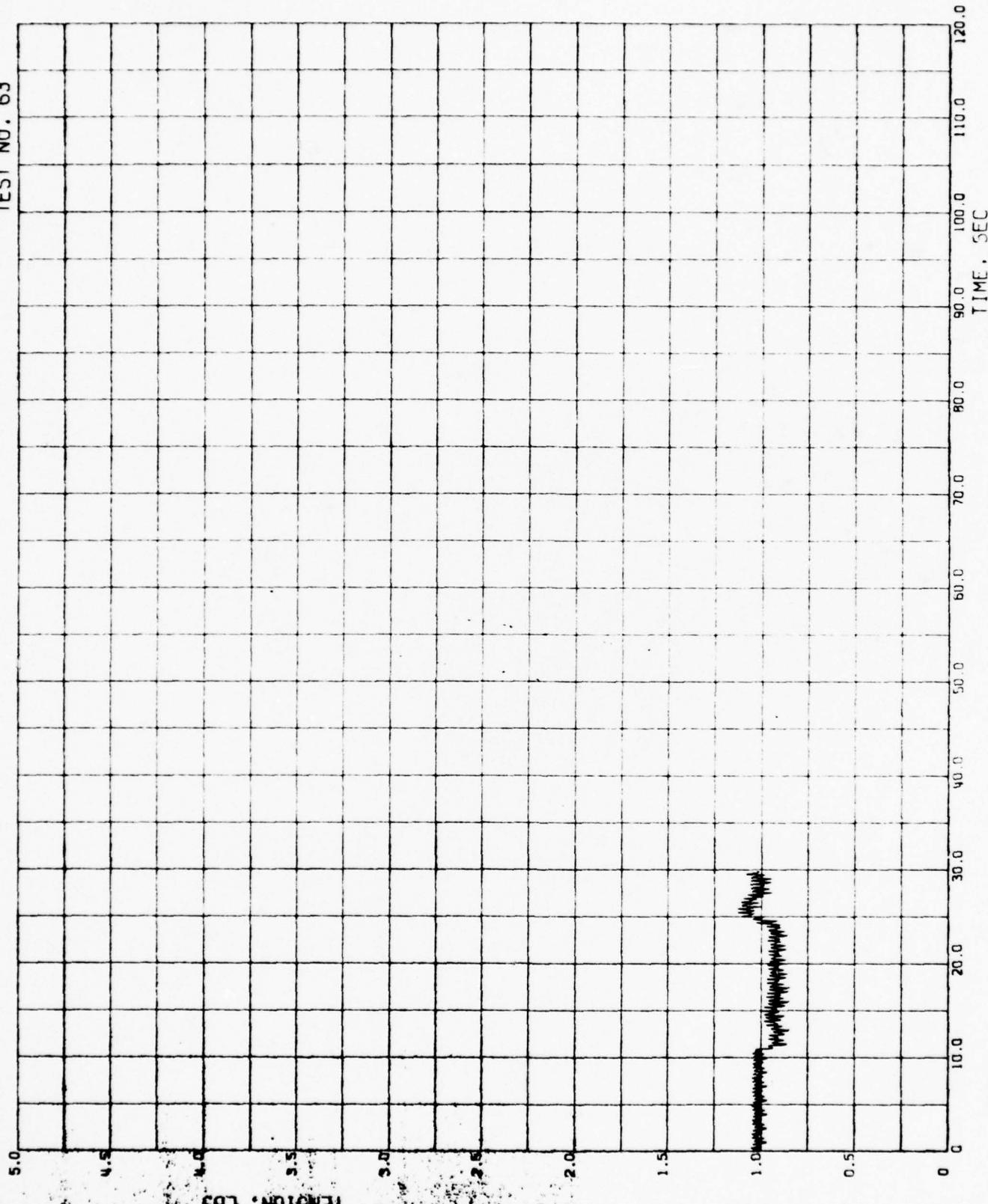
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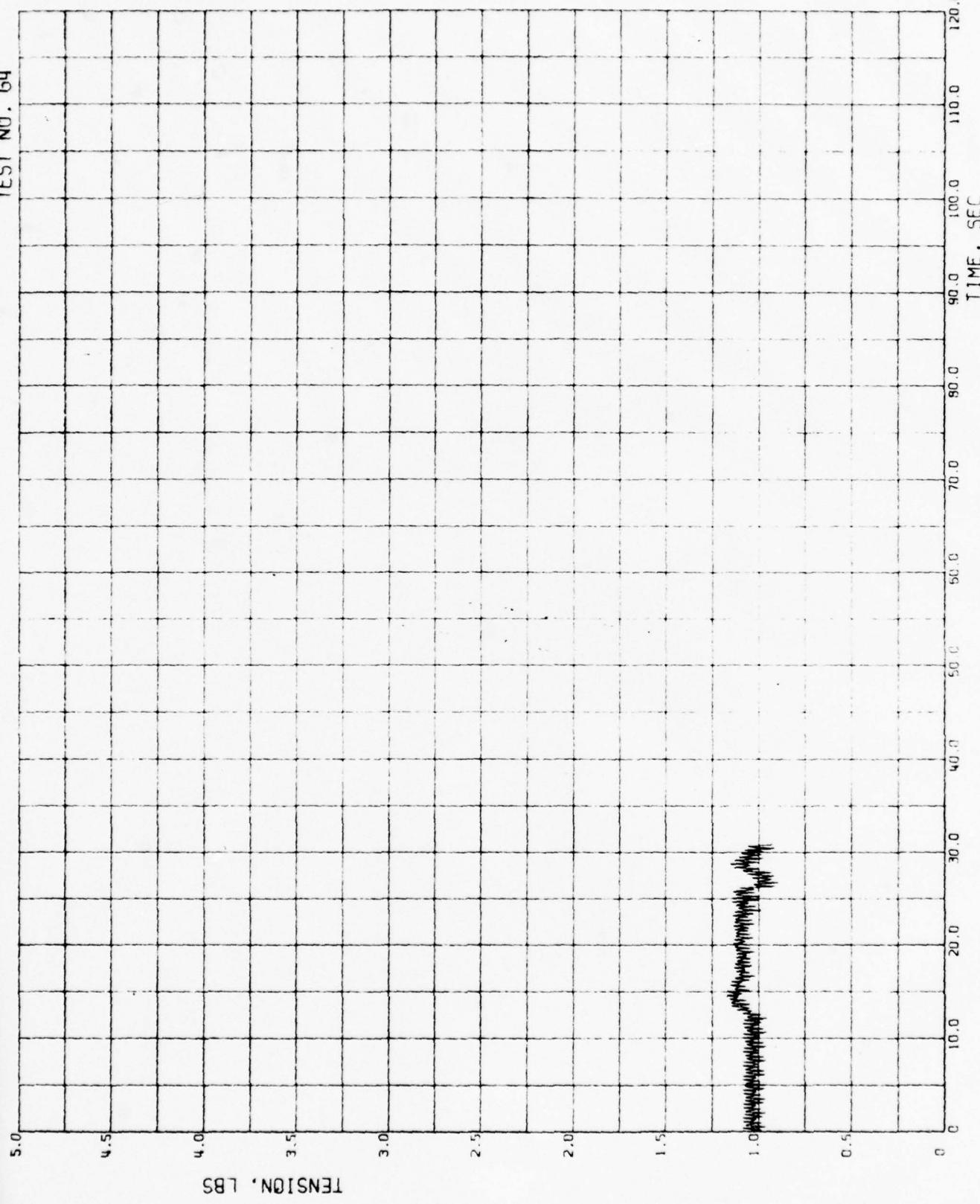
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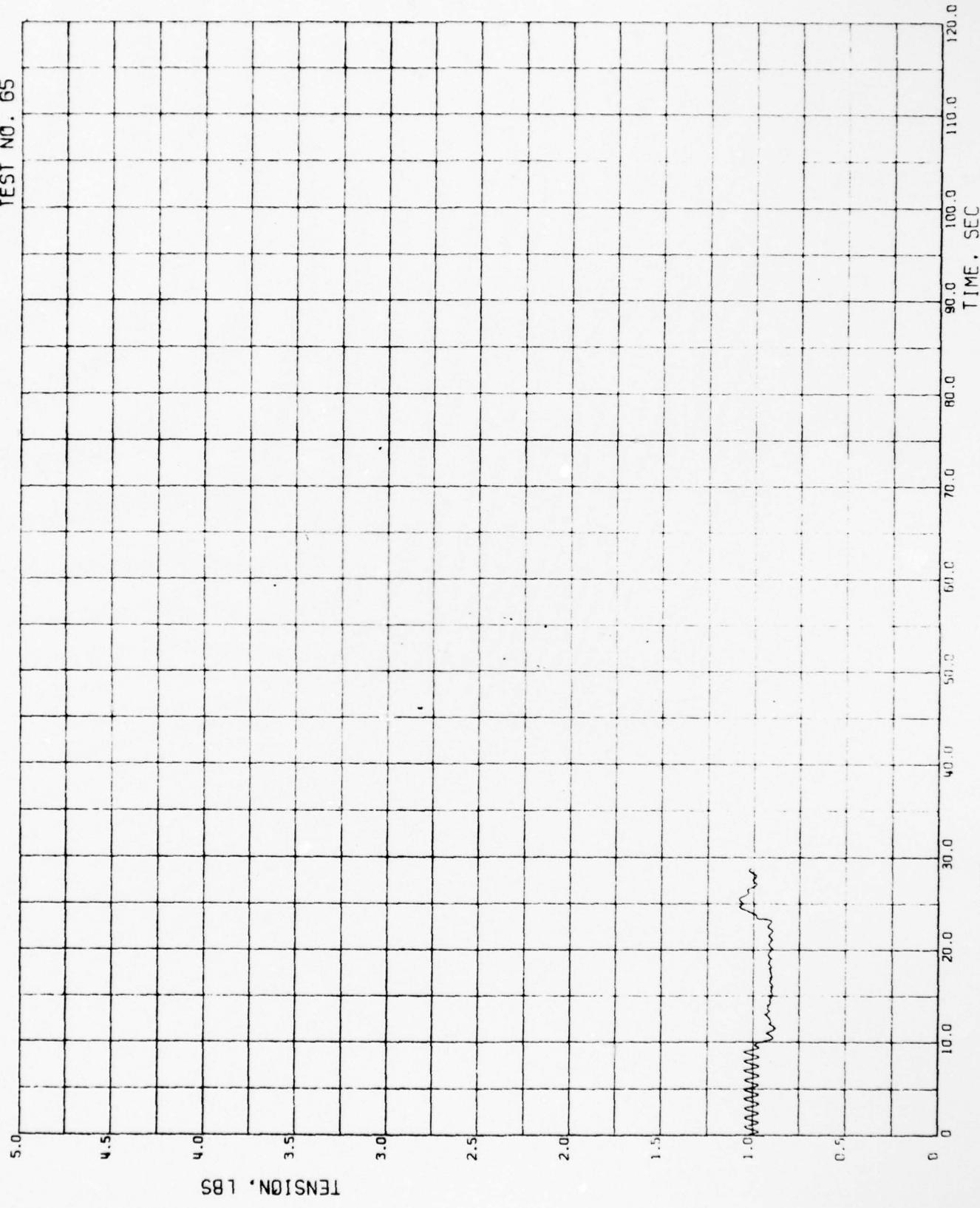
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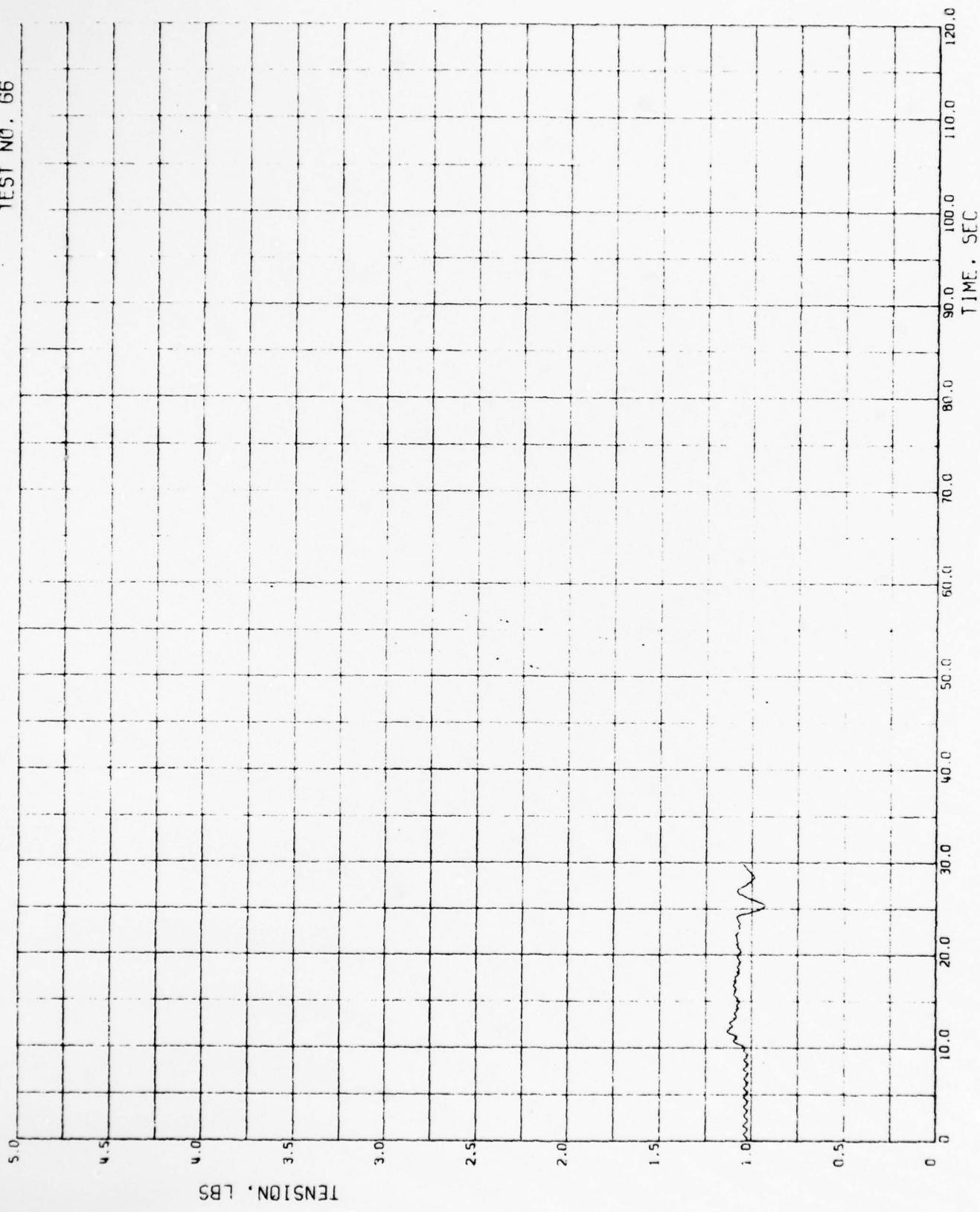
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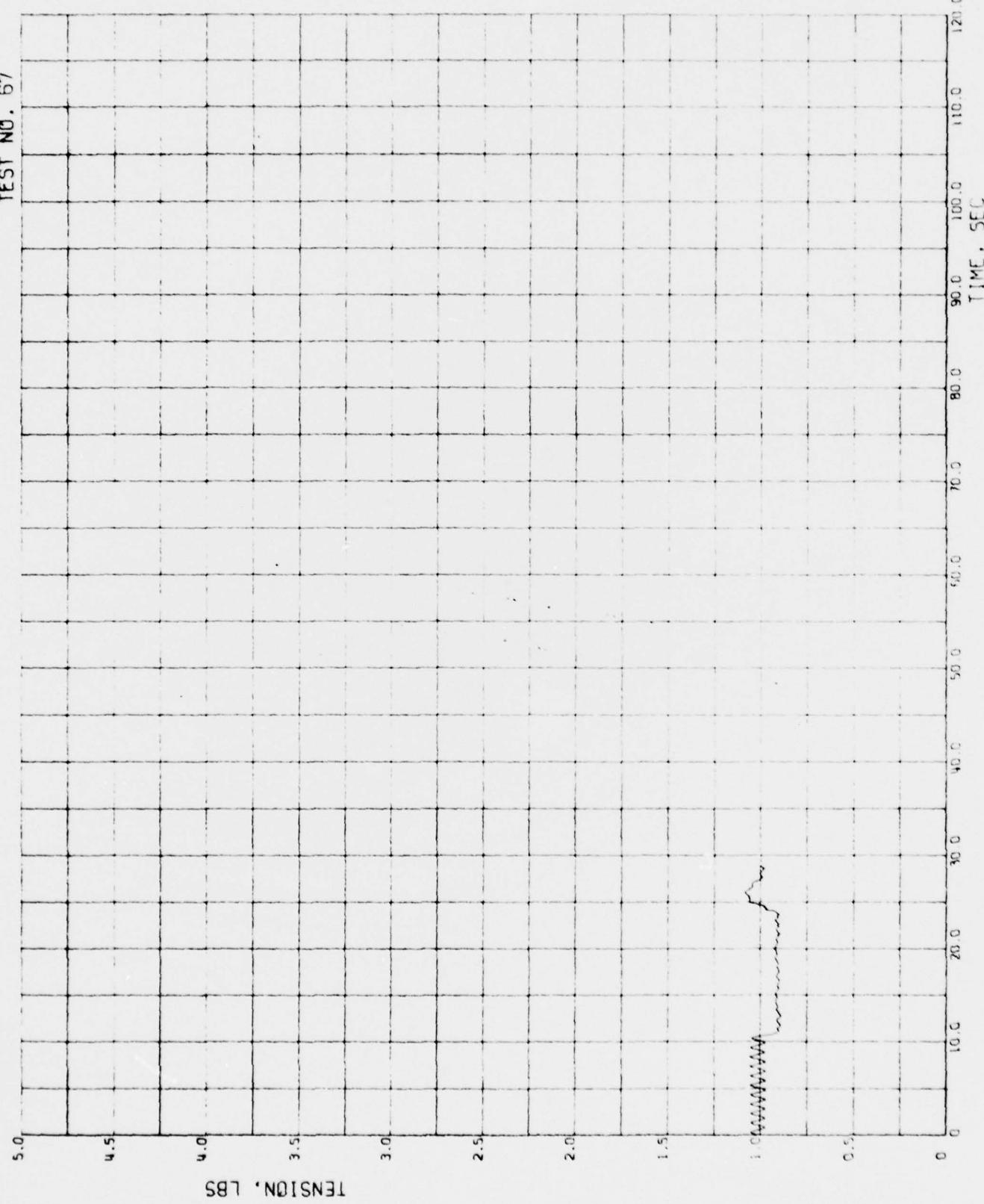
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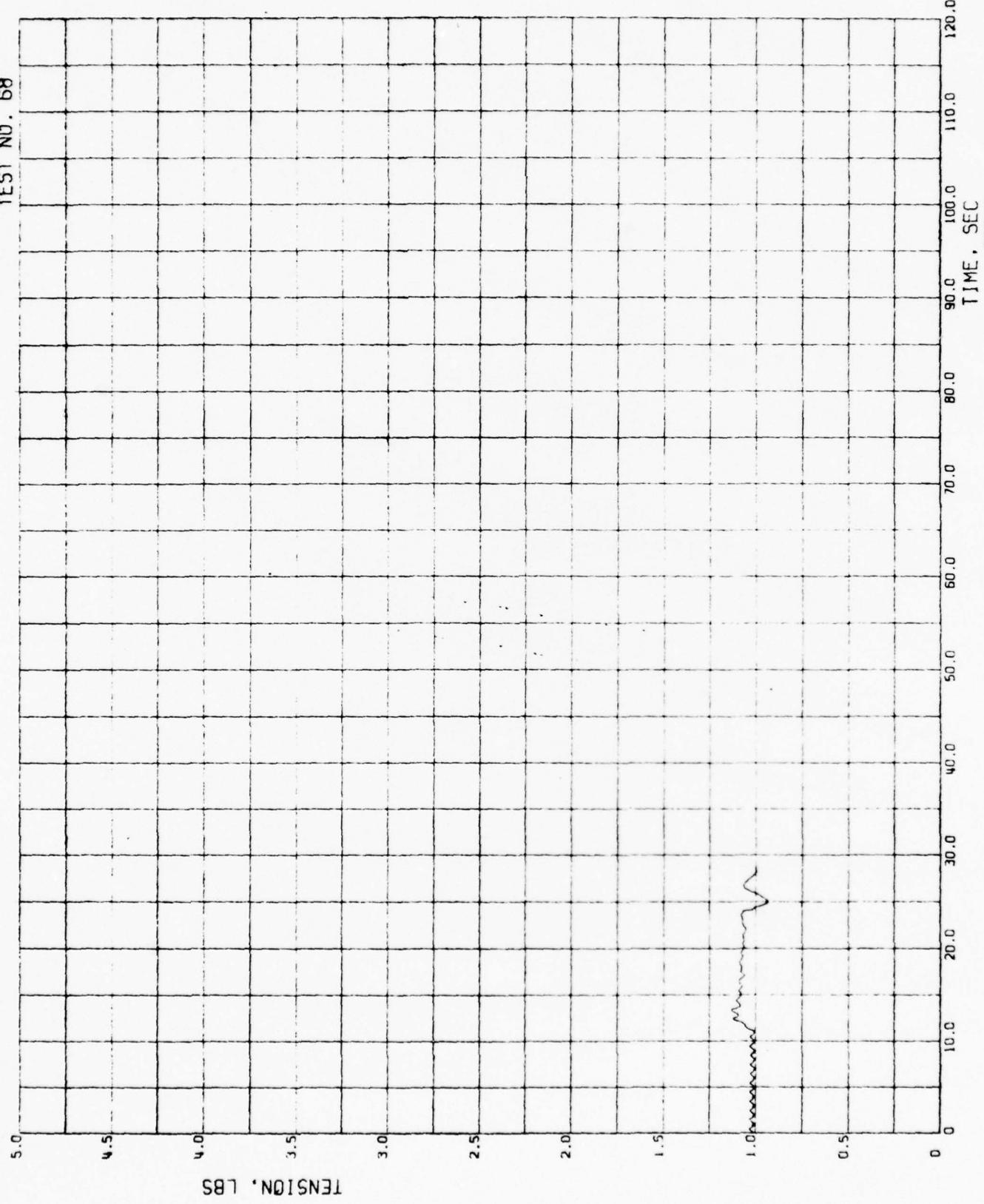
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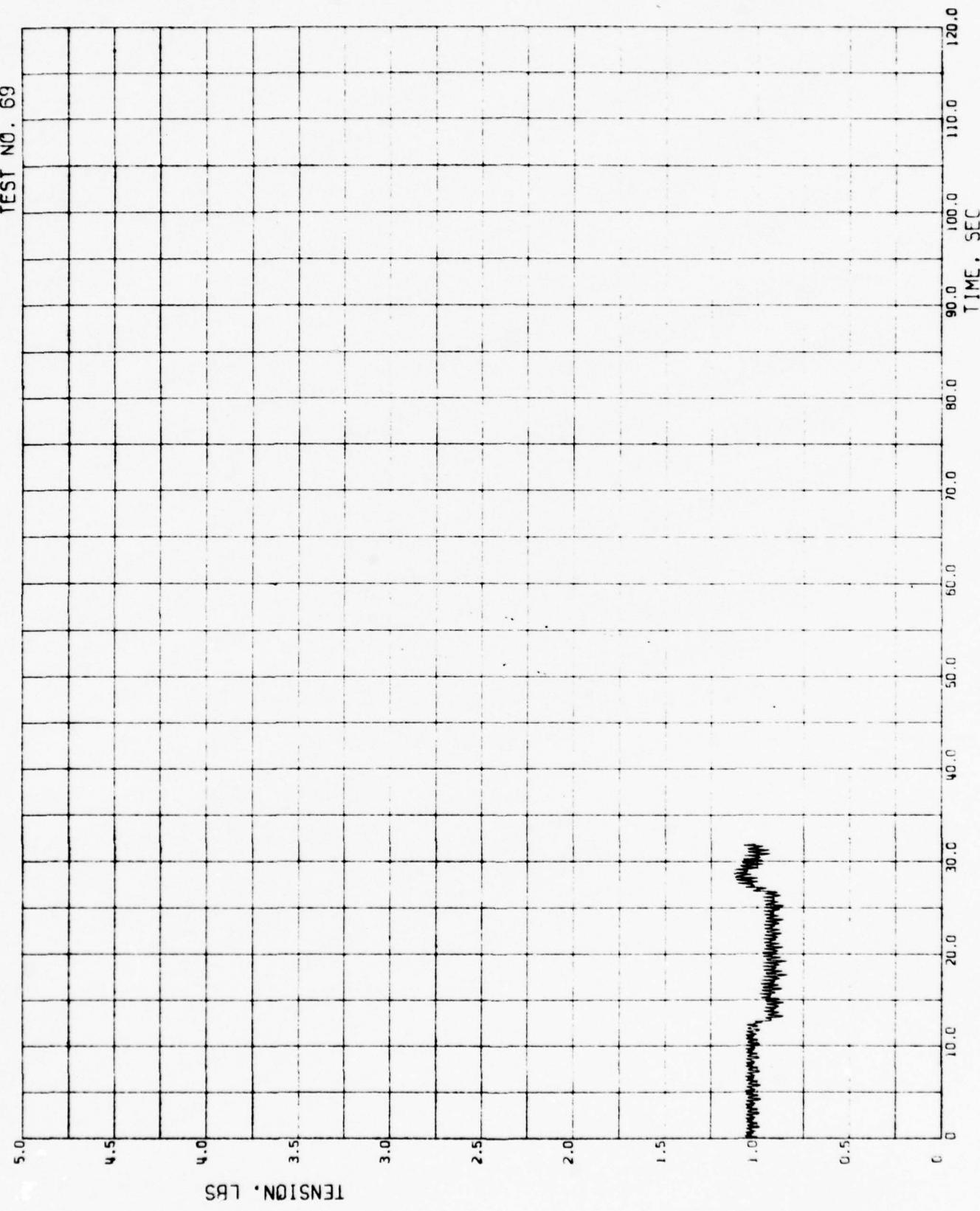
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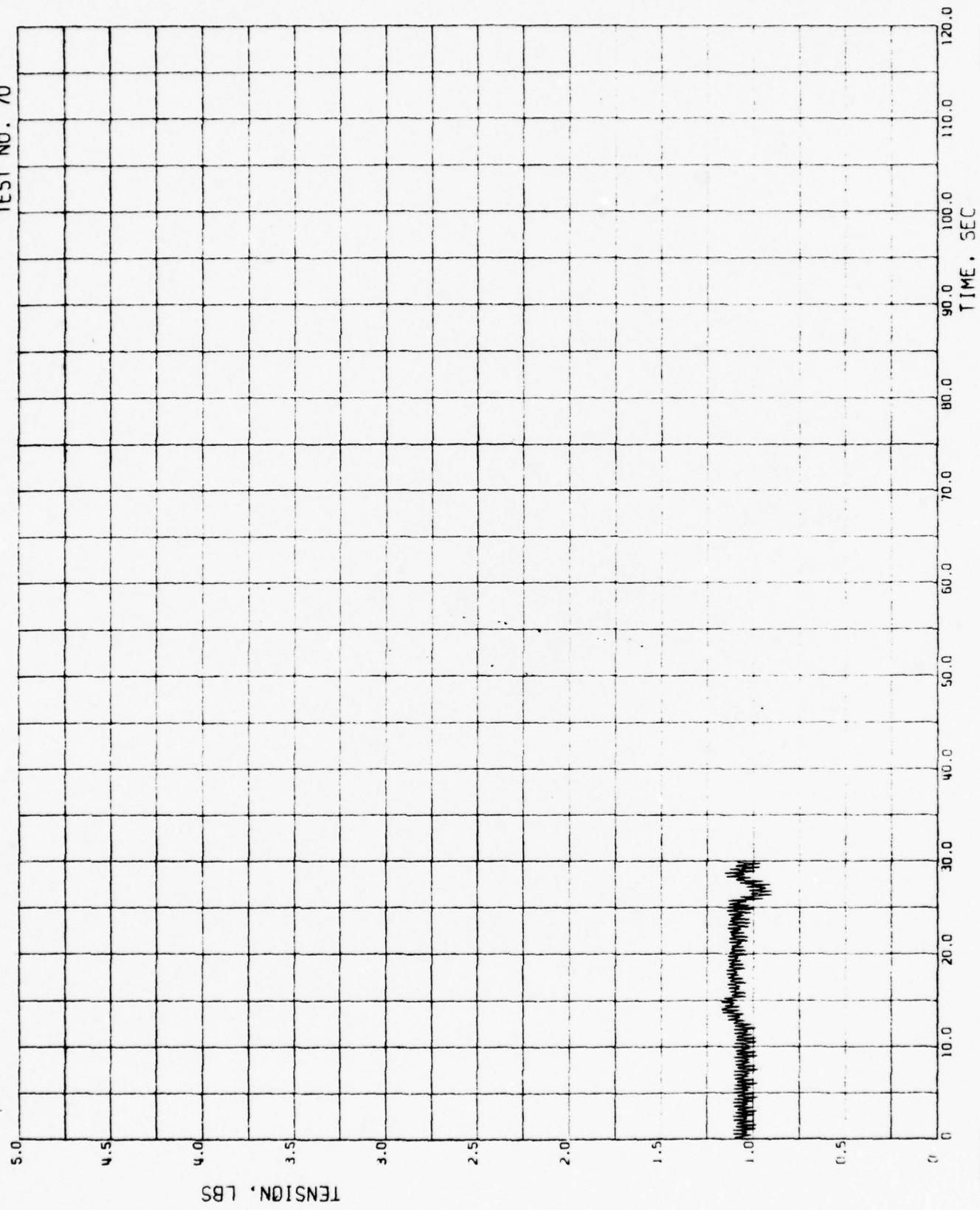
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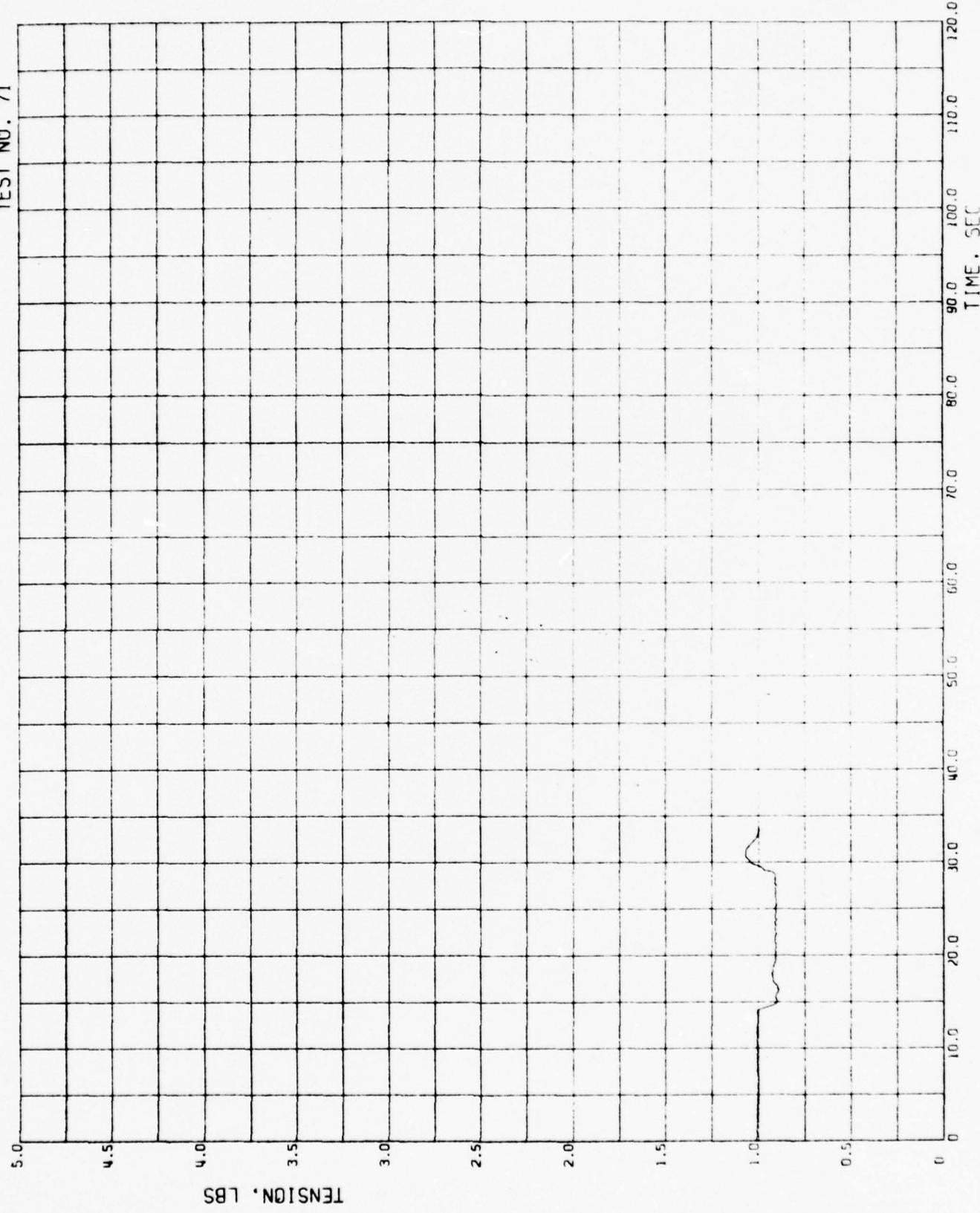
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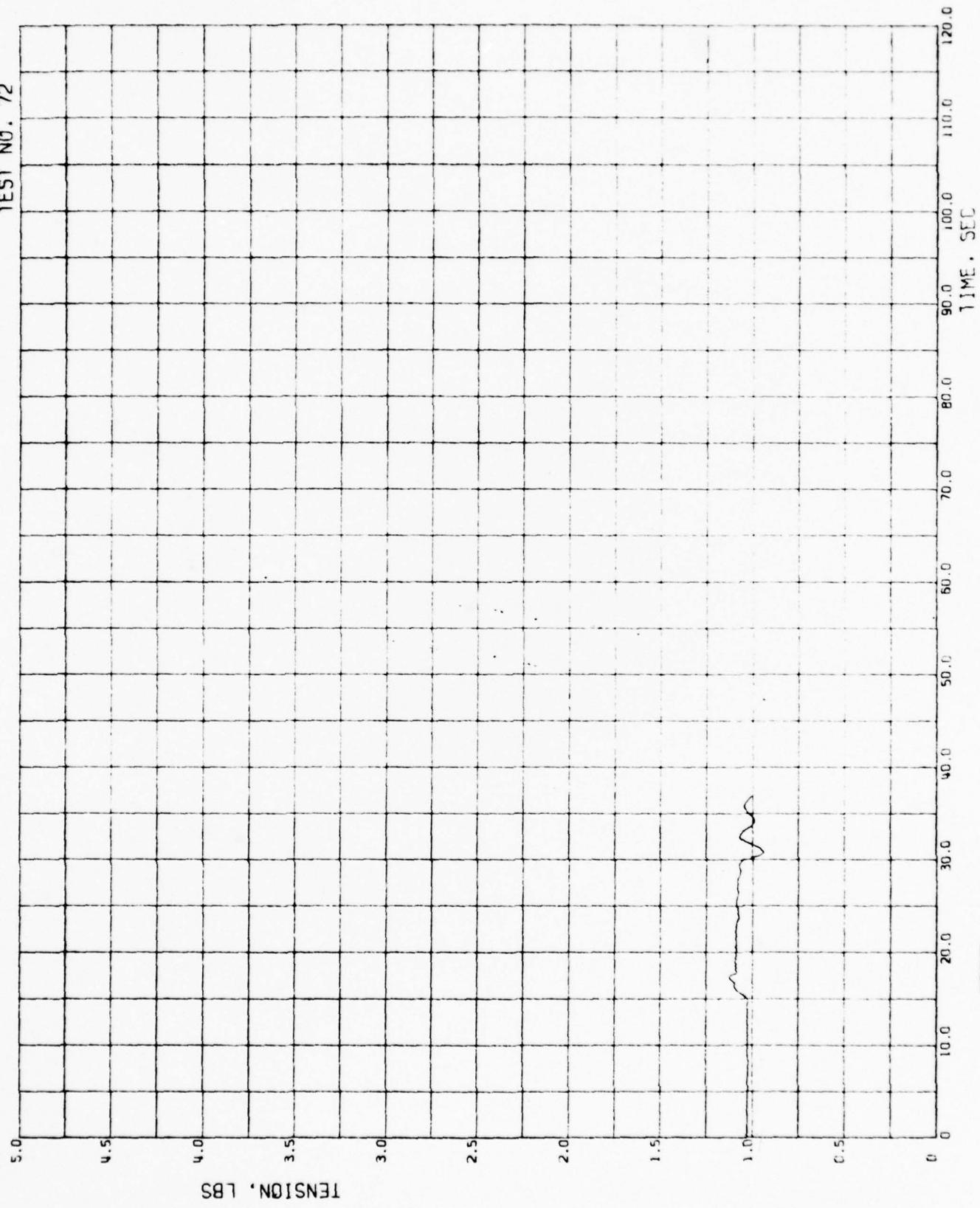
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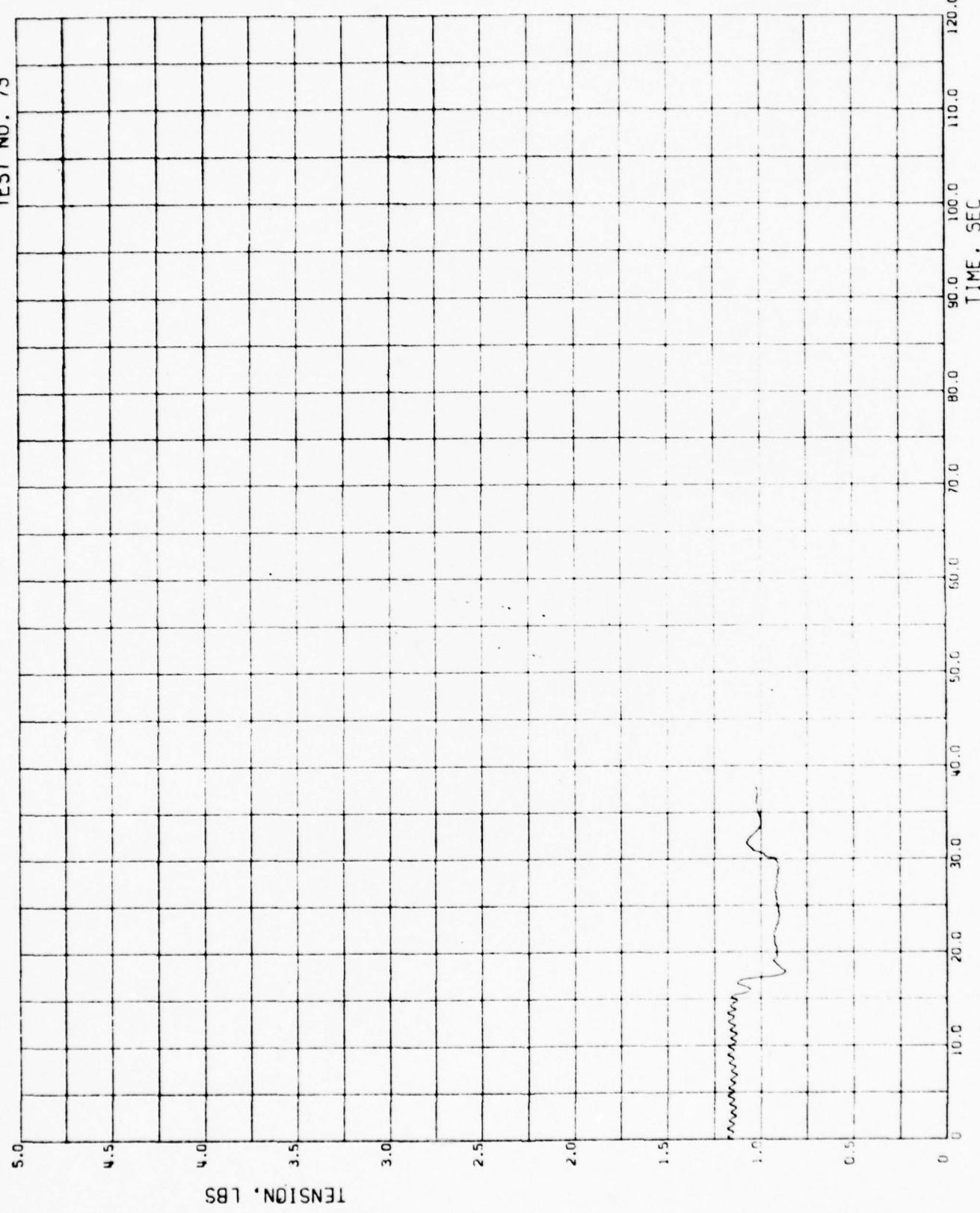
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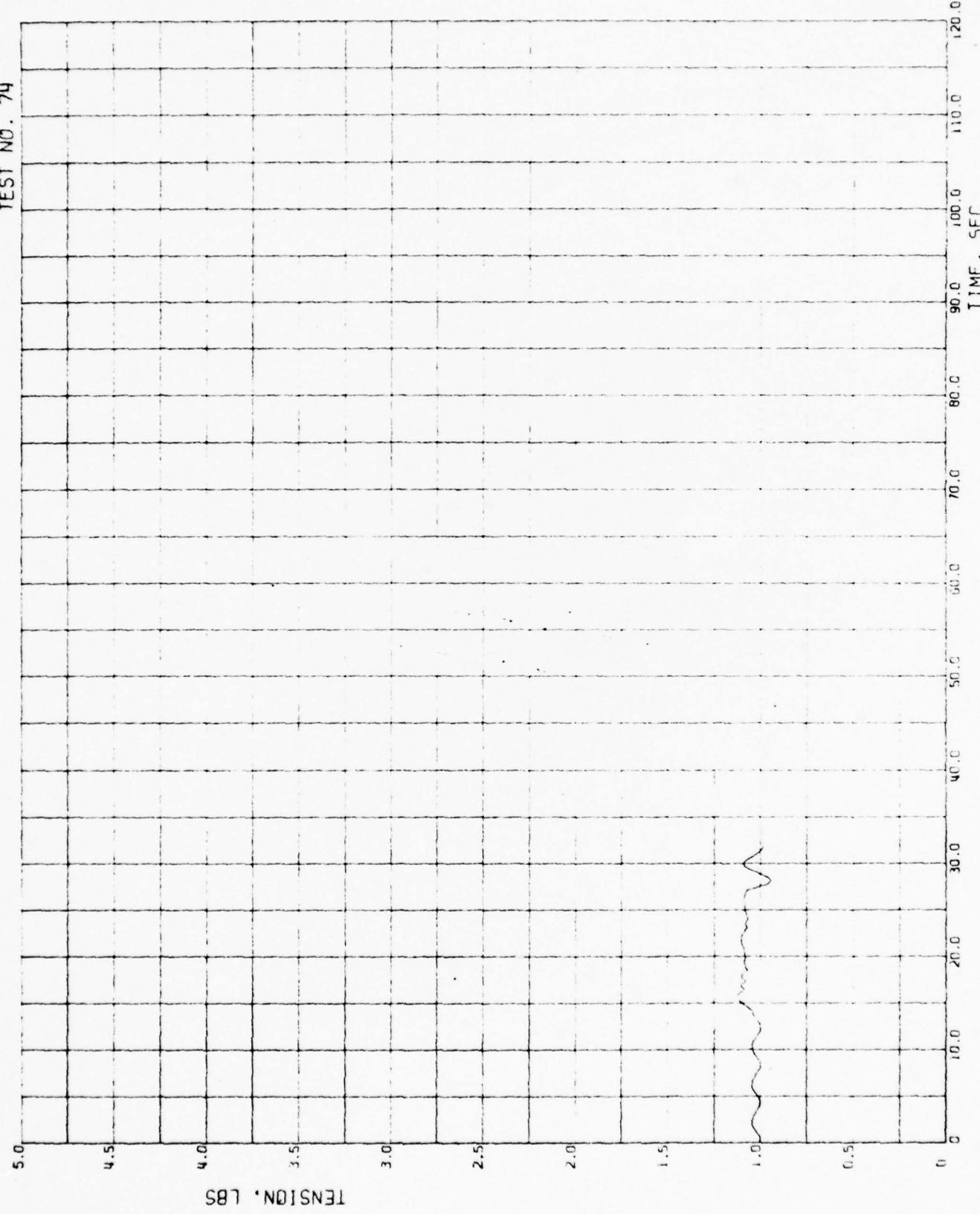
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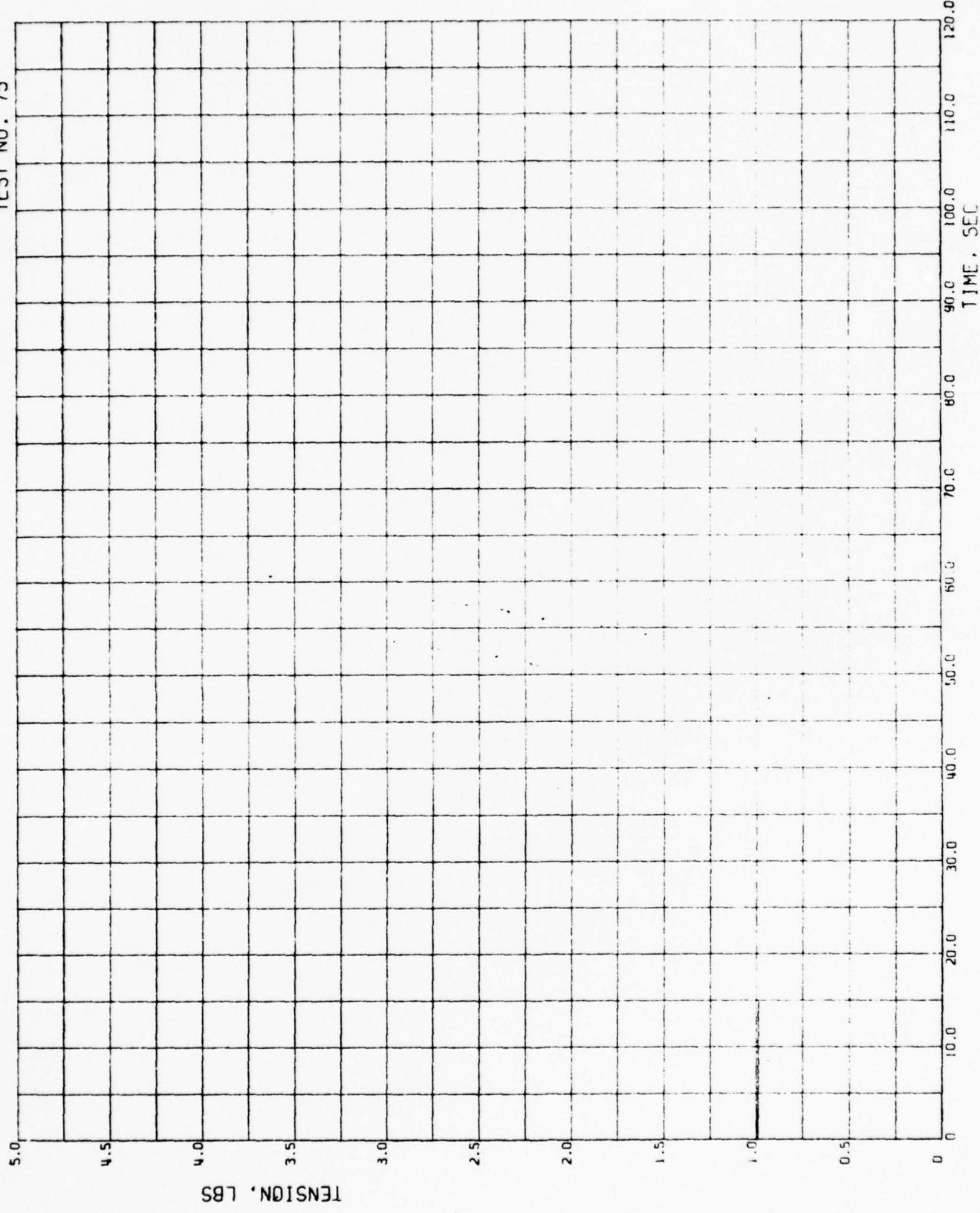
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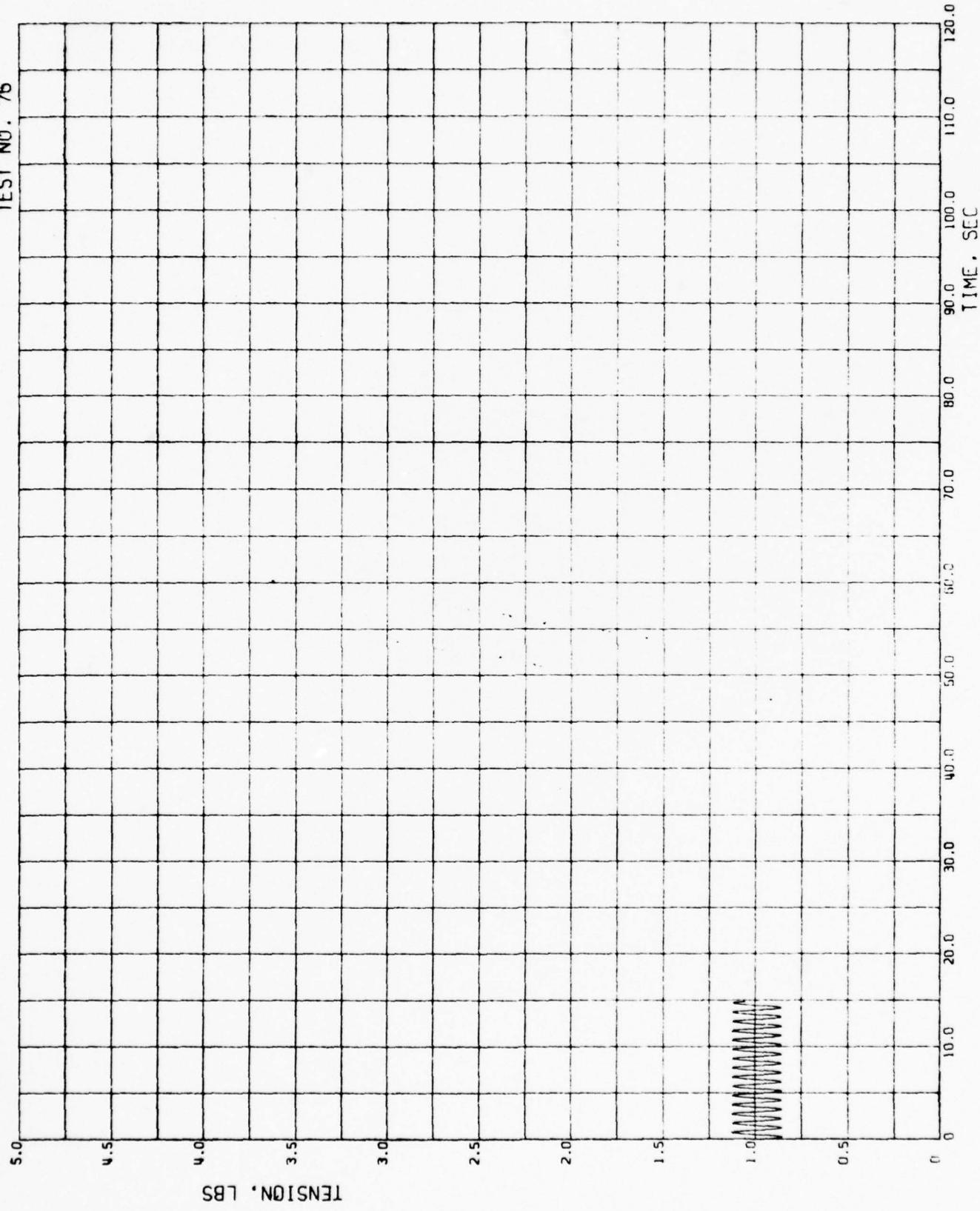
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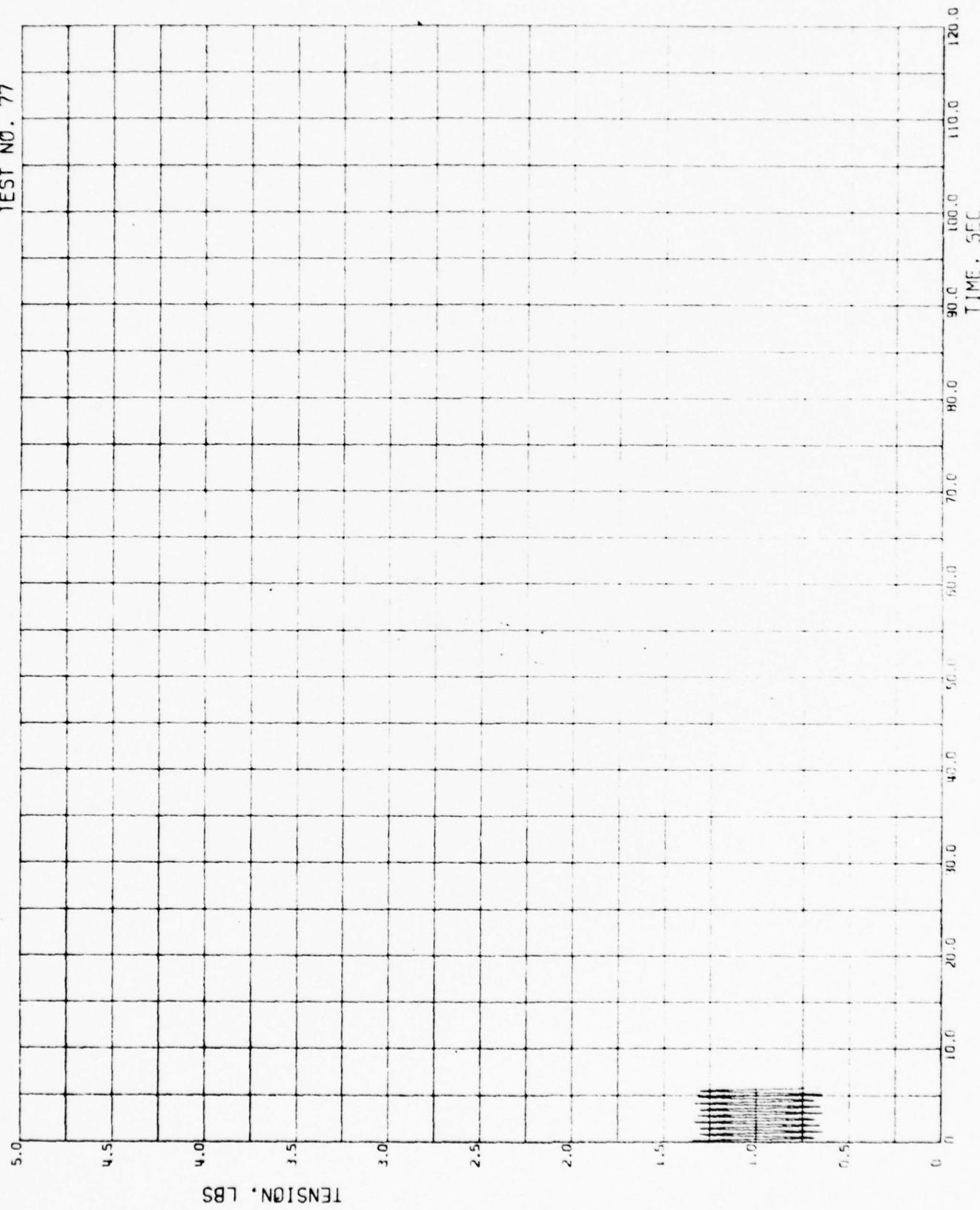
TEST NO. 75



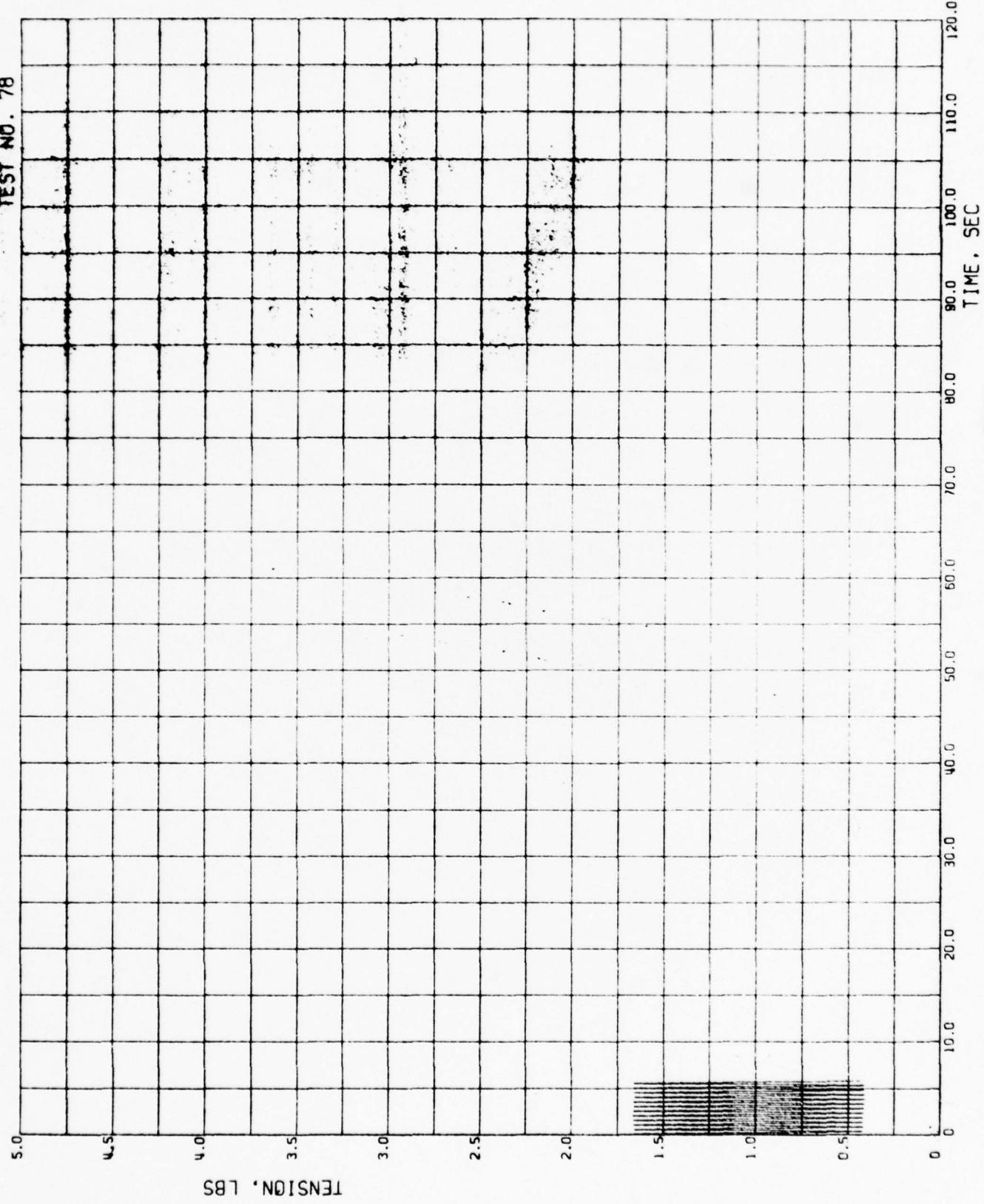
TEST NO. 76



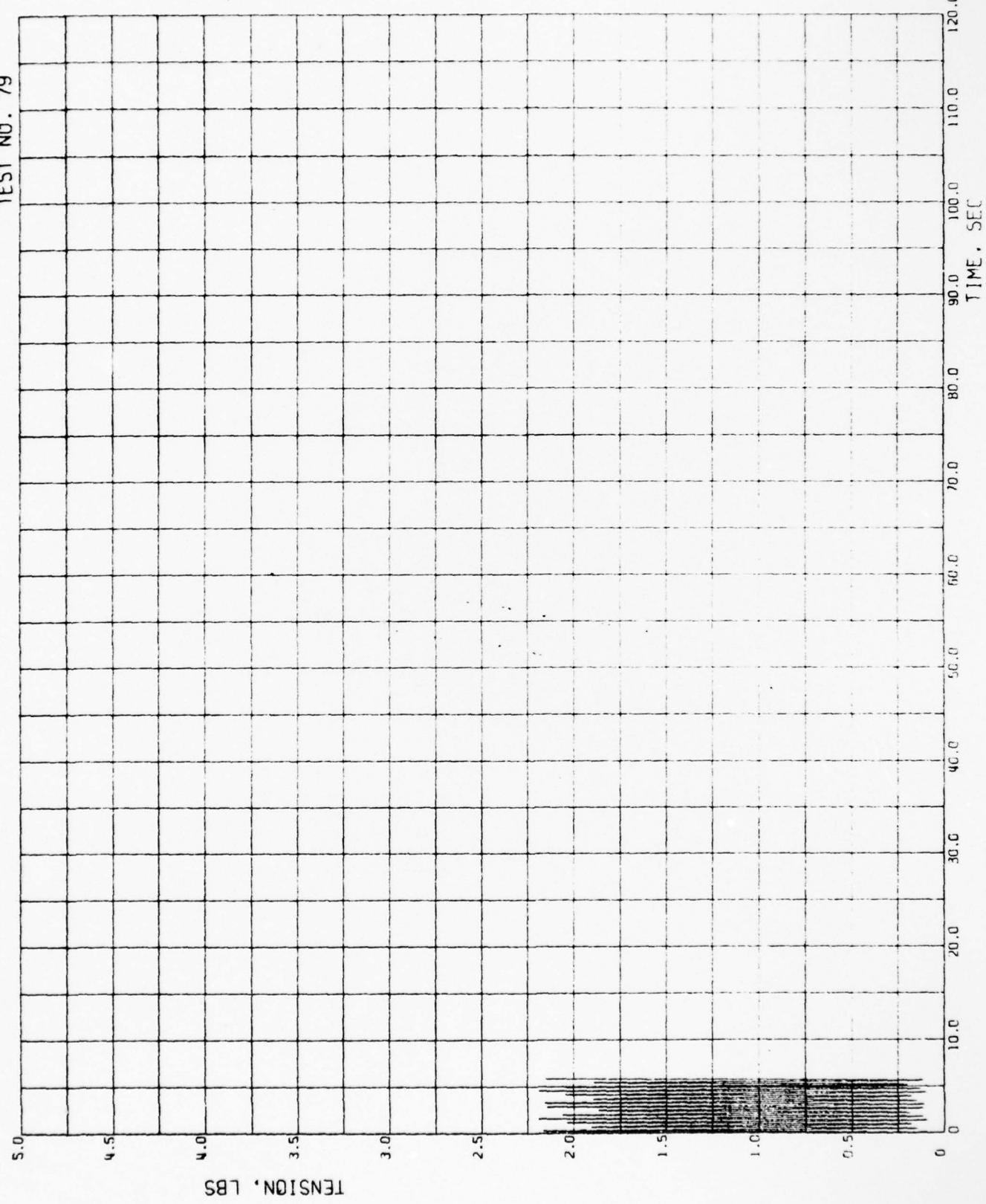
TEST NO. 77



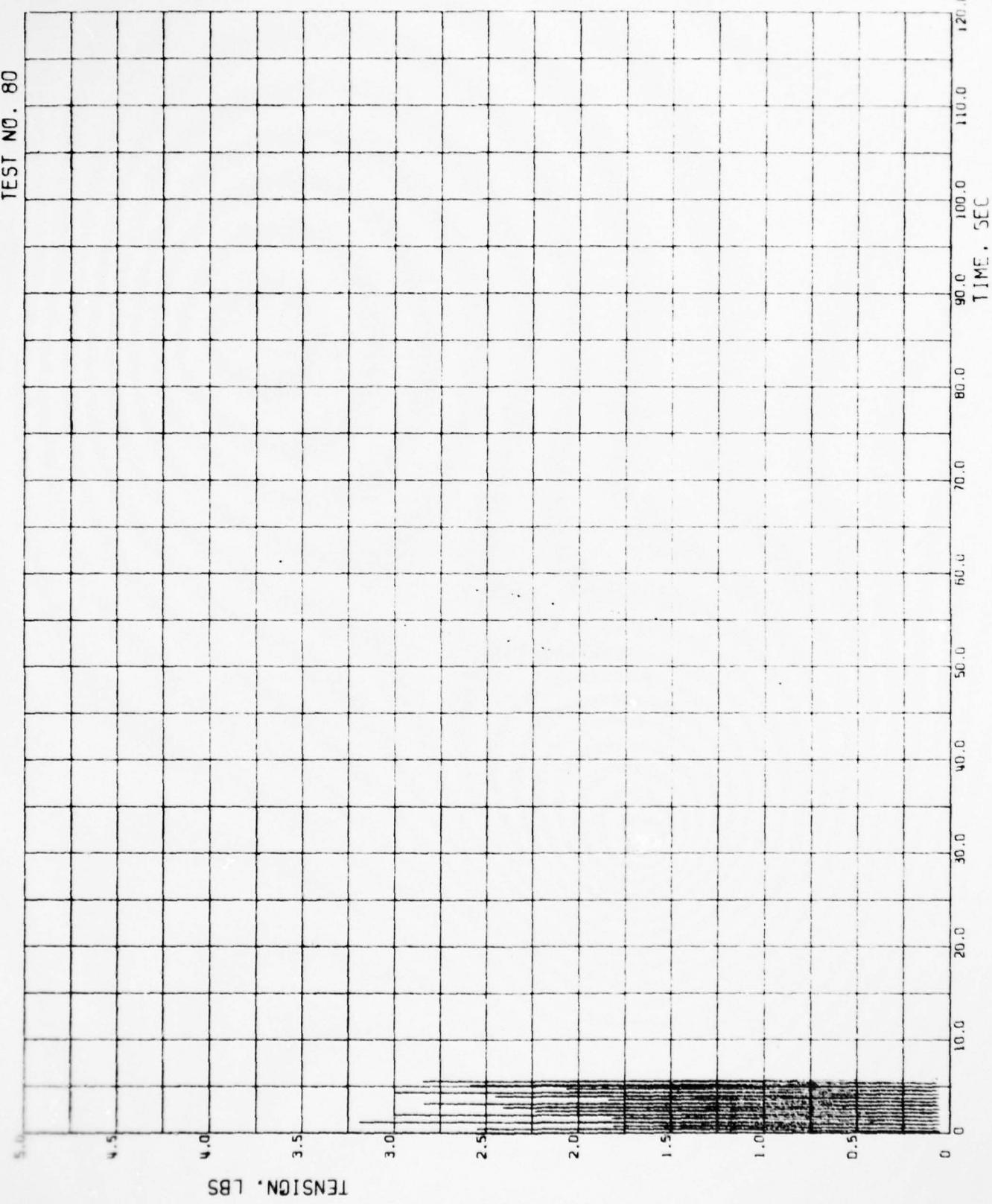
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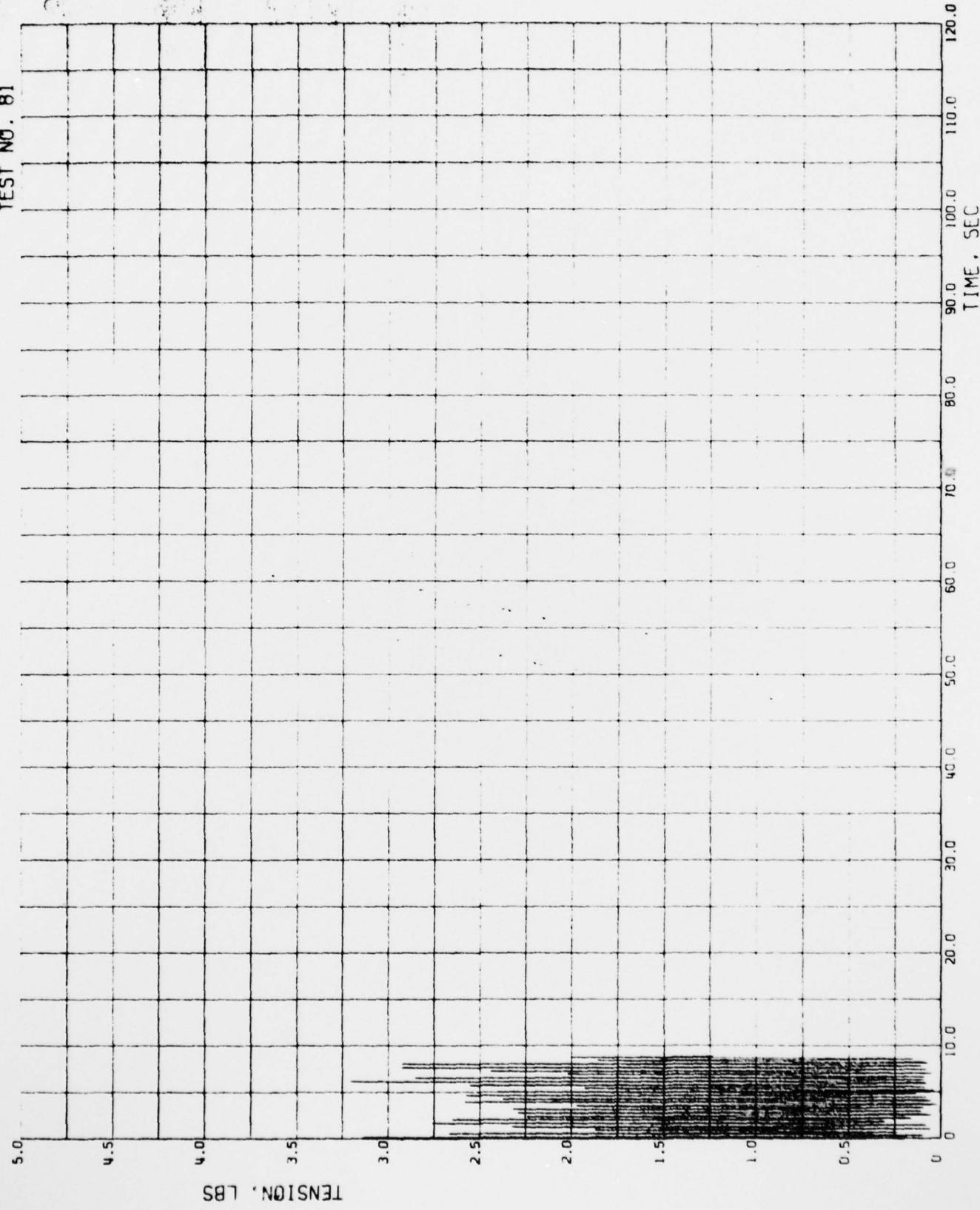
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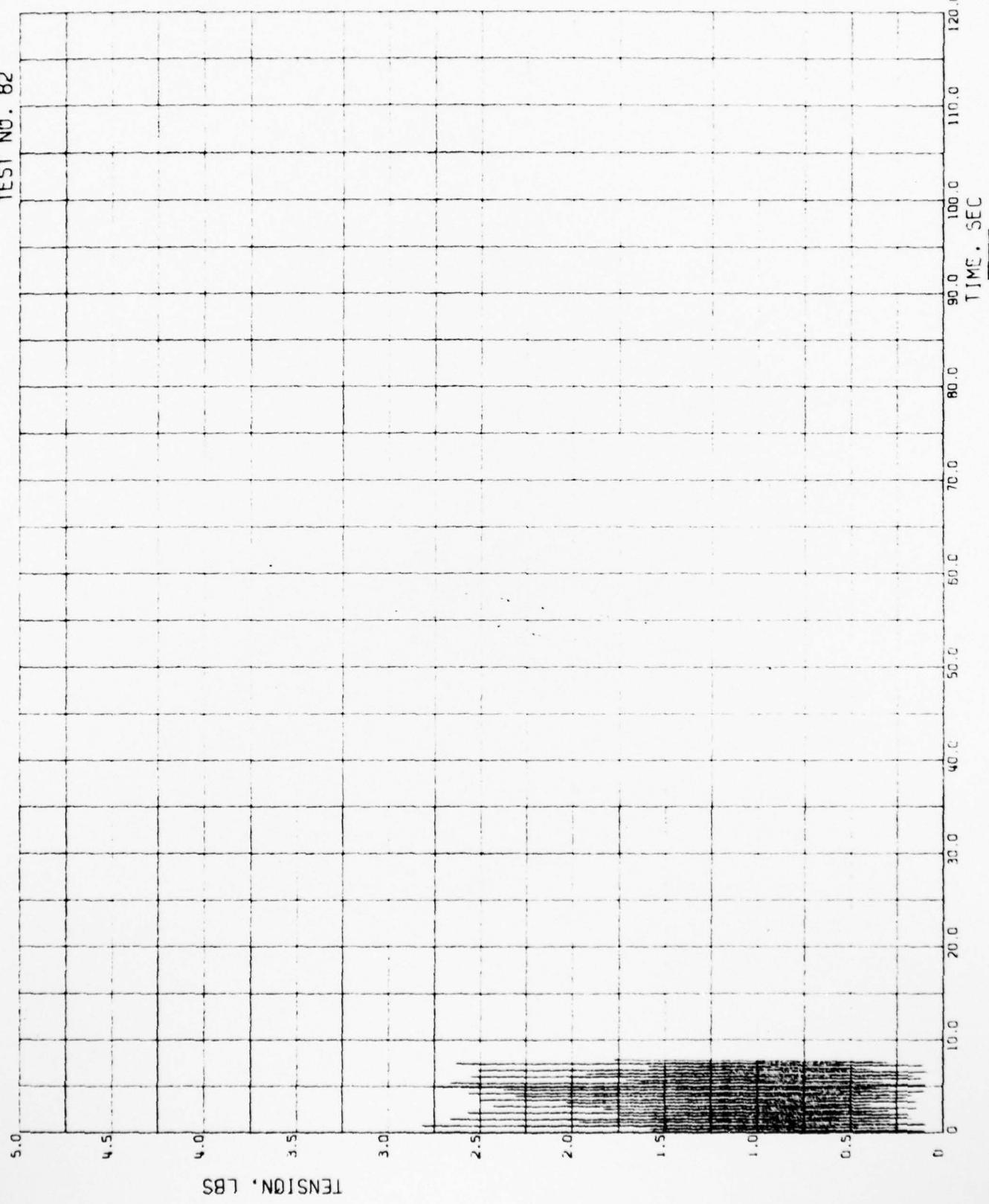
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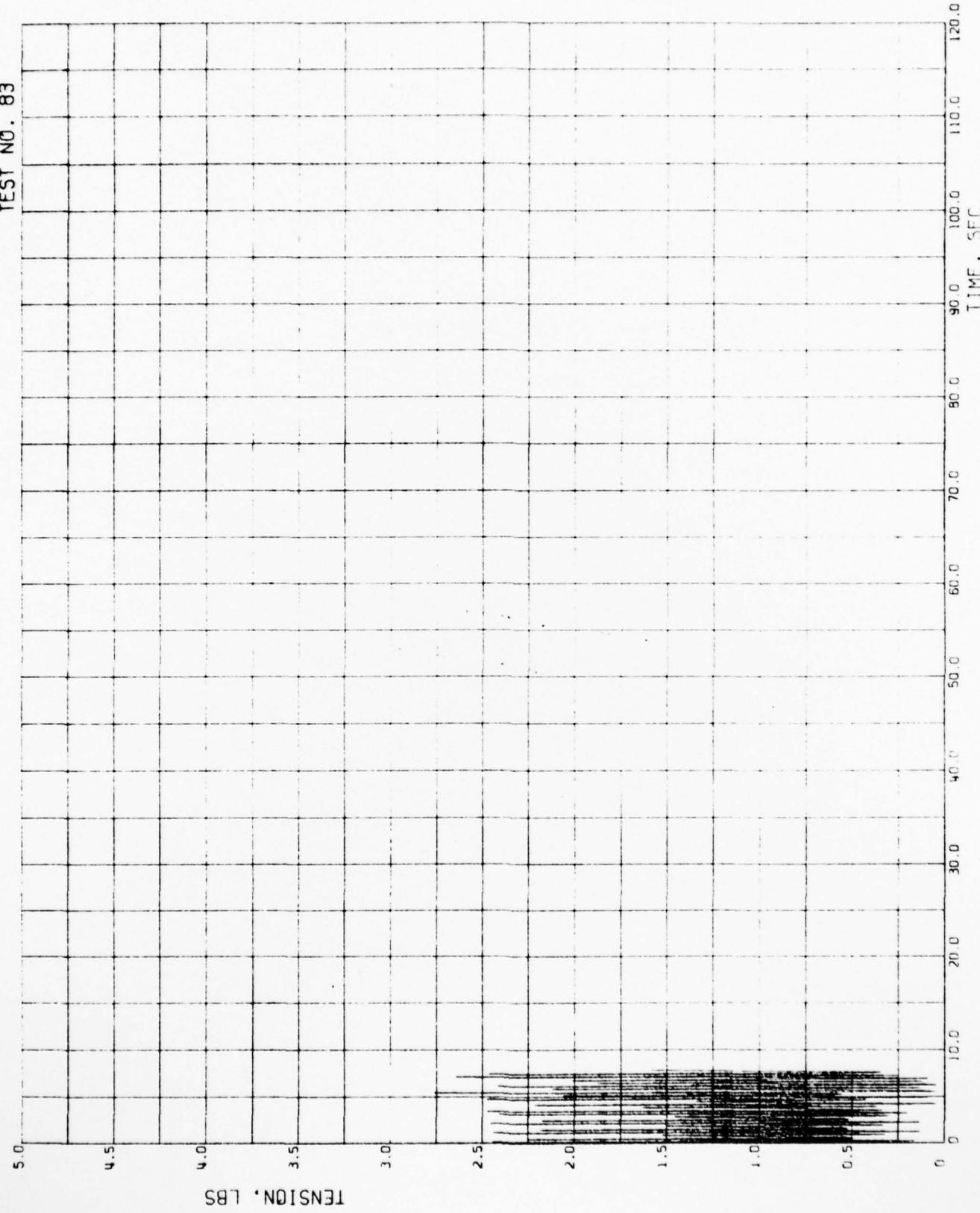
TEST NO. 81



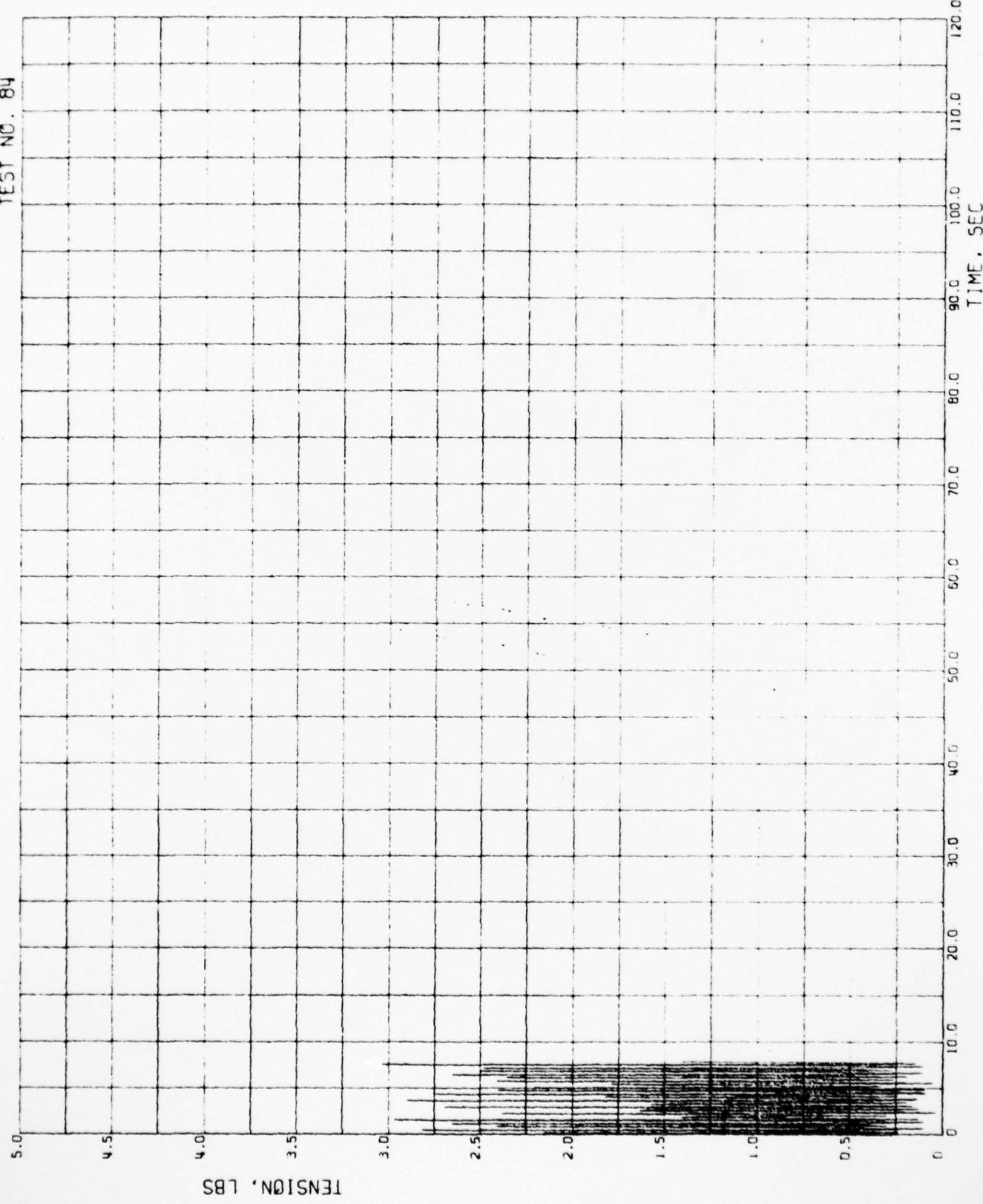
TEST NO. 82



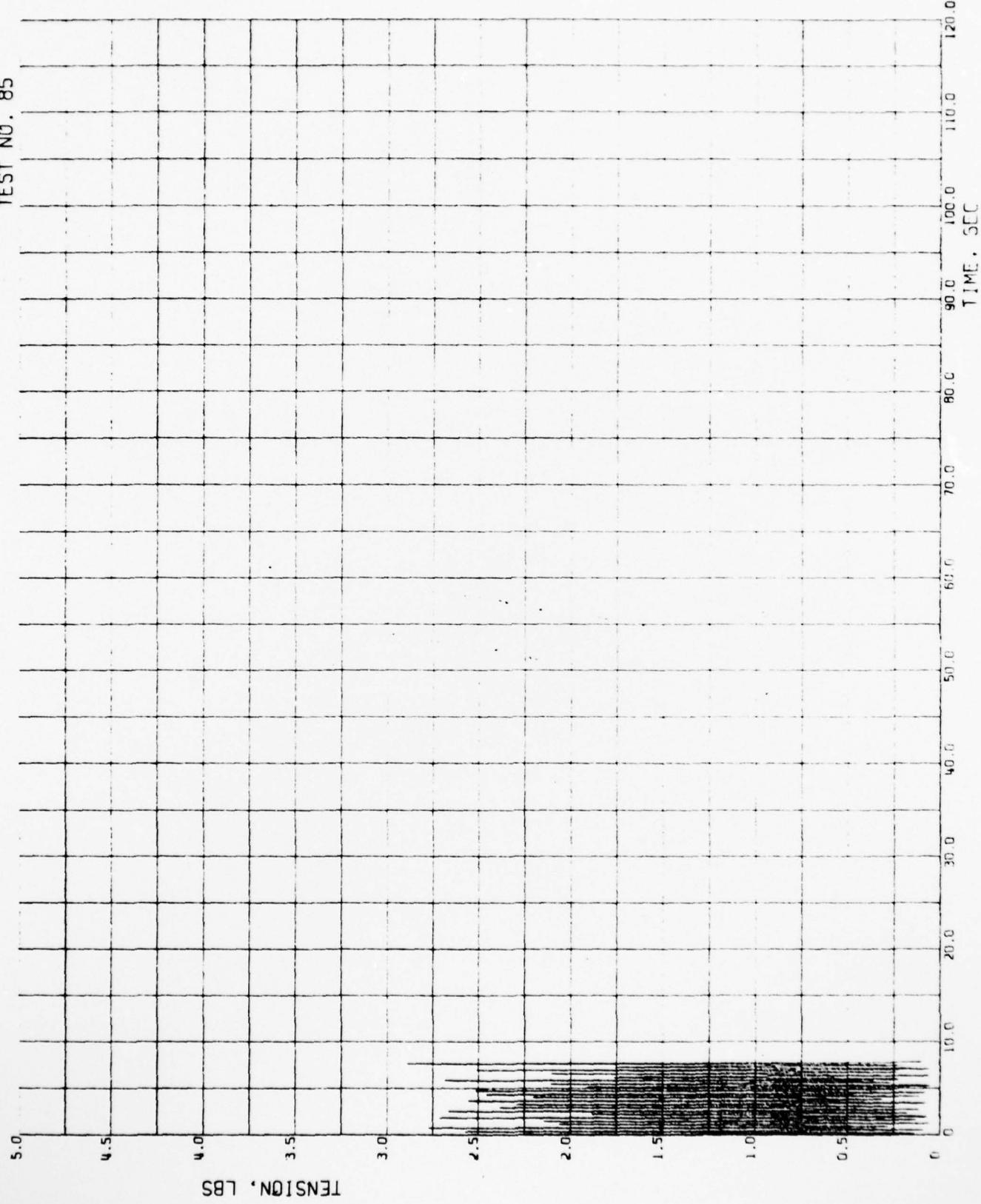
TEST NO. 83



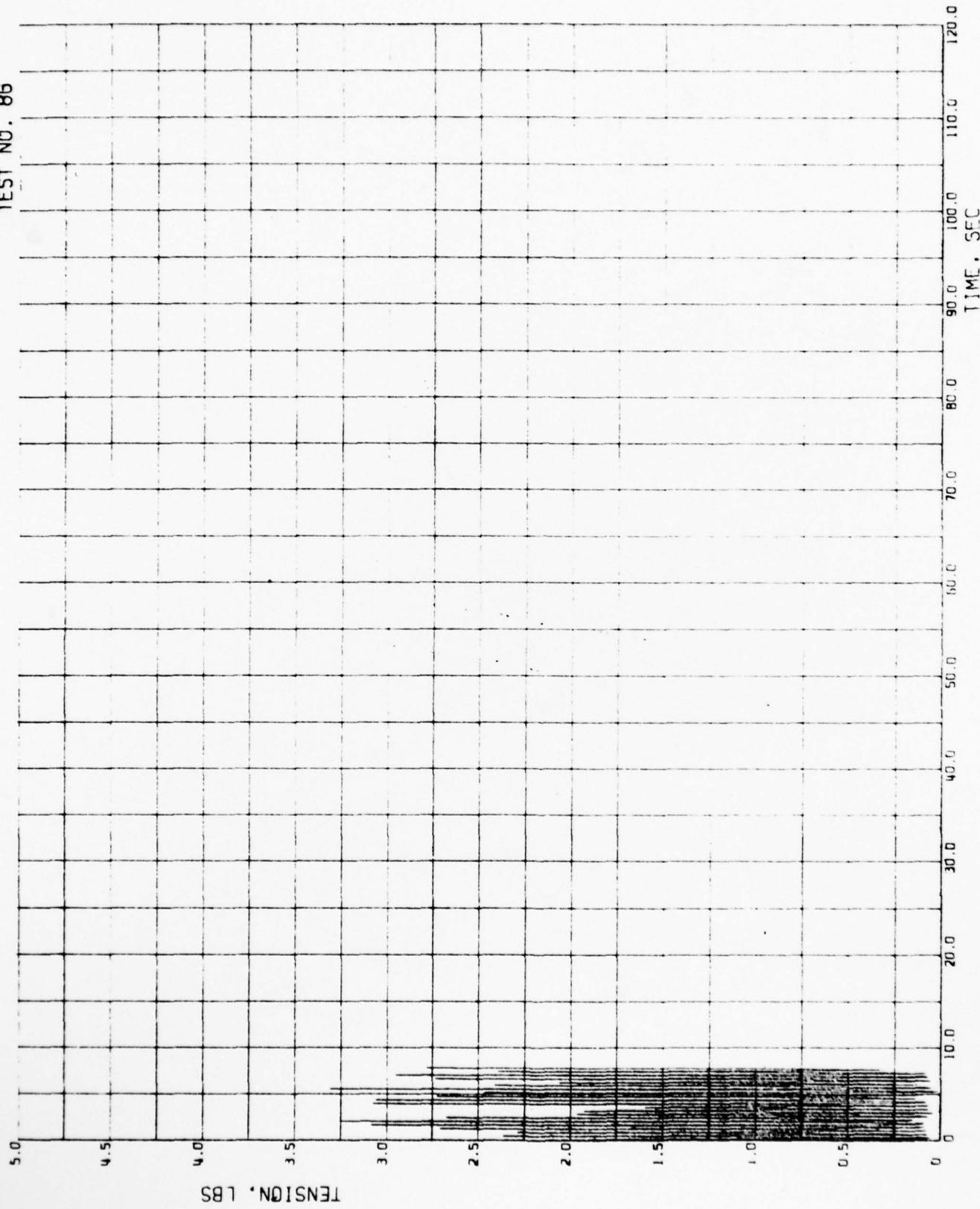
TEST NO. 84



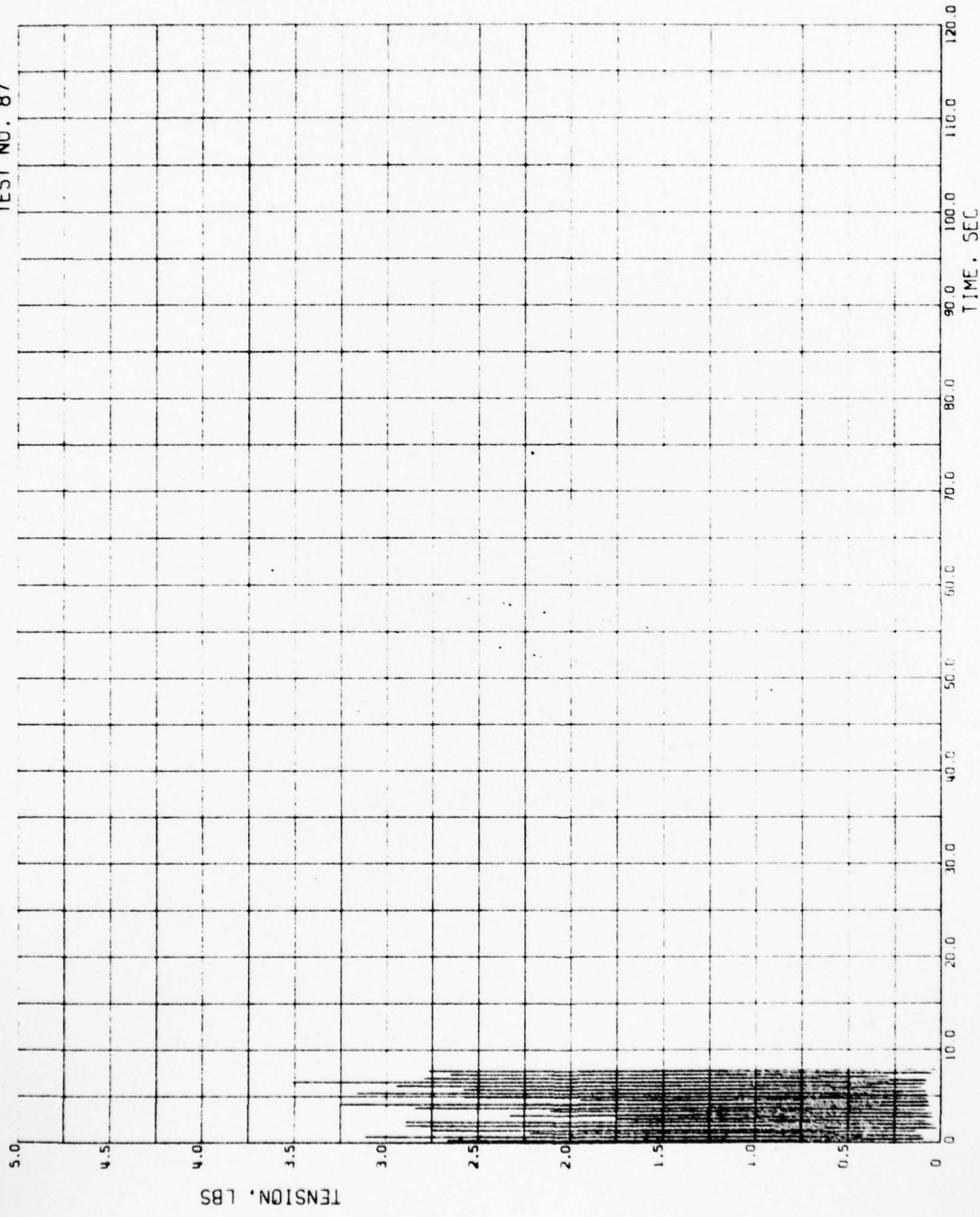
TEST NO. 85



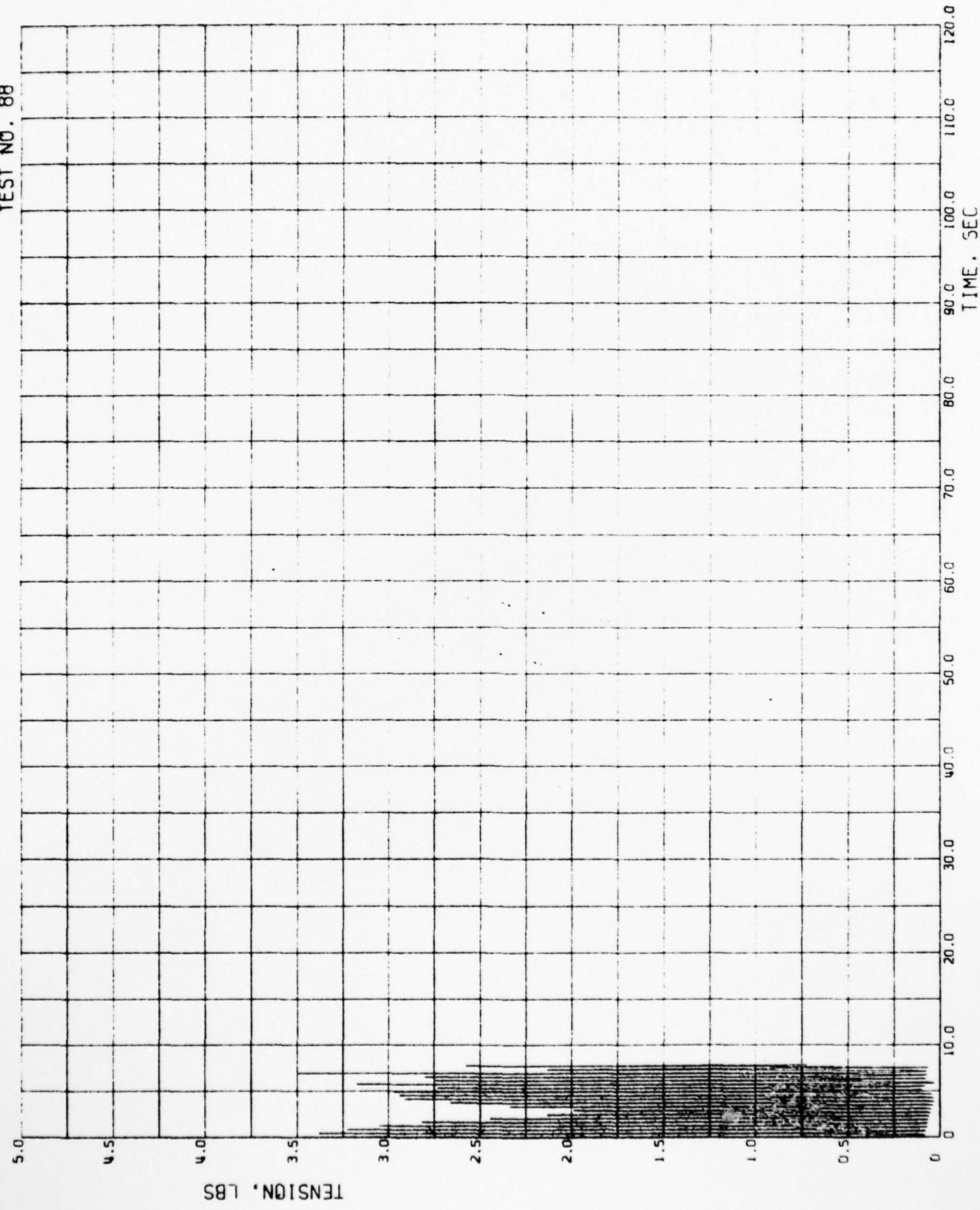
TEST NO. 86



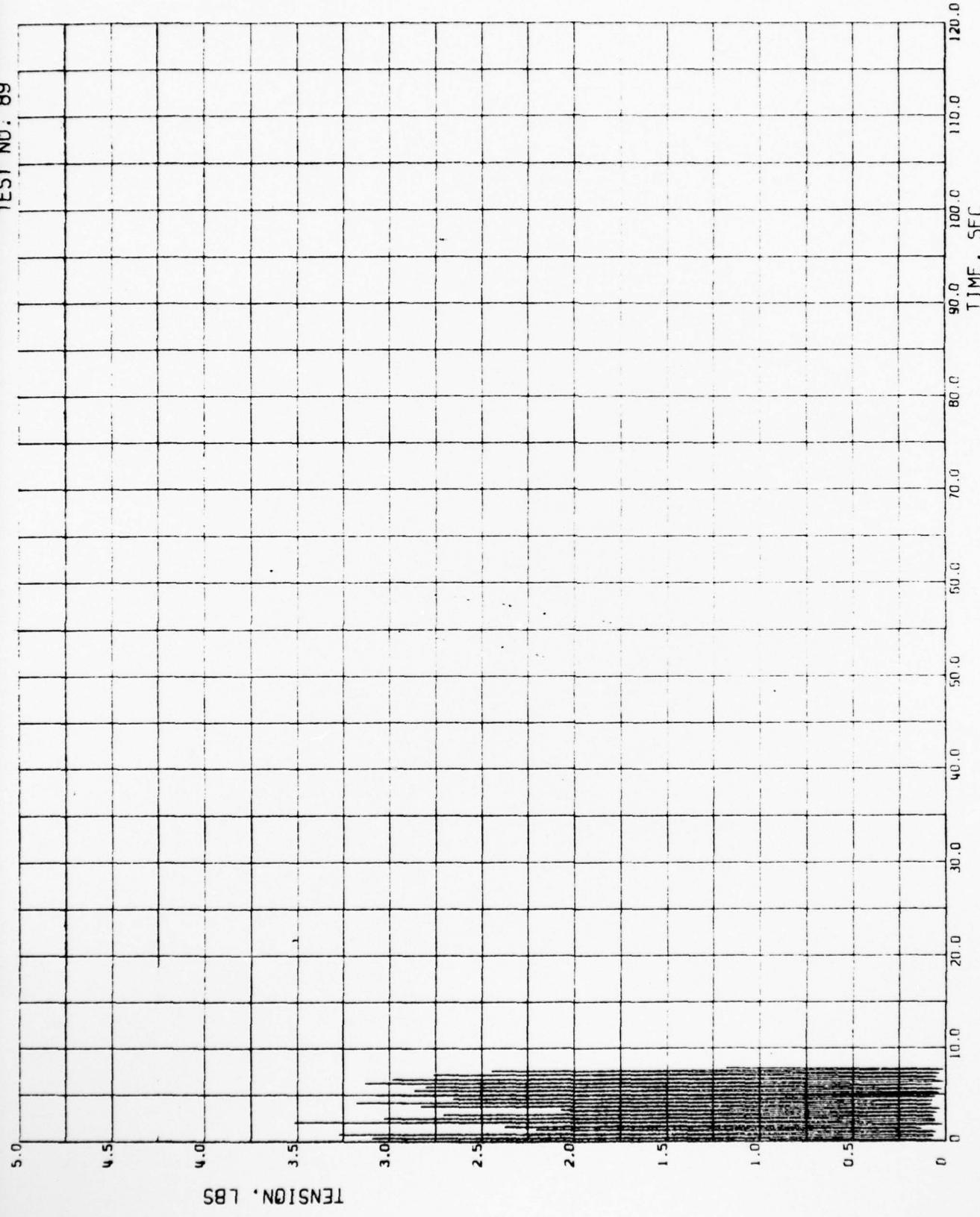
TEST NO. 87



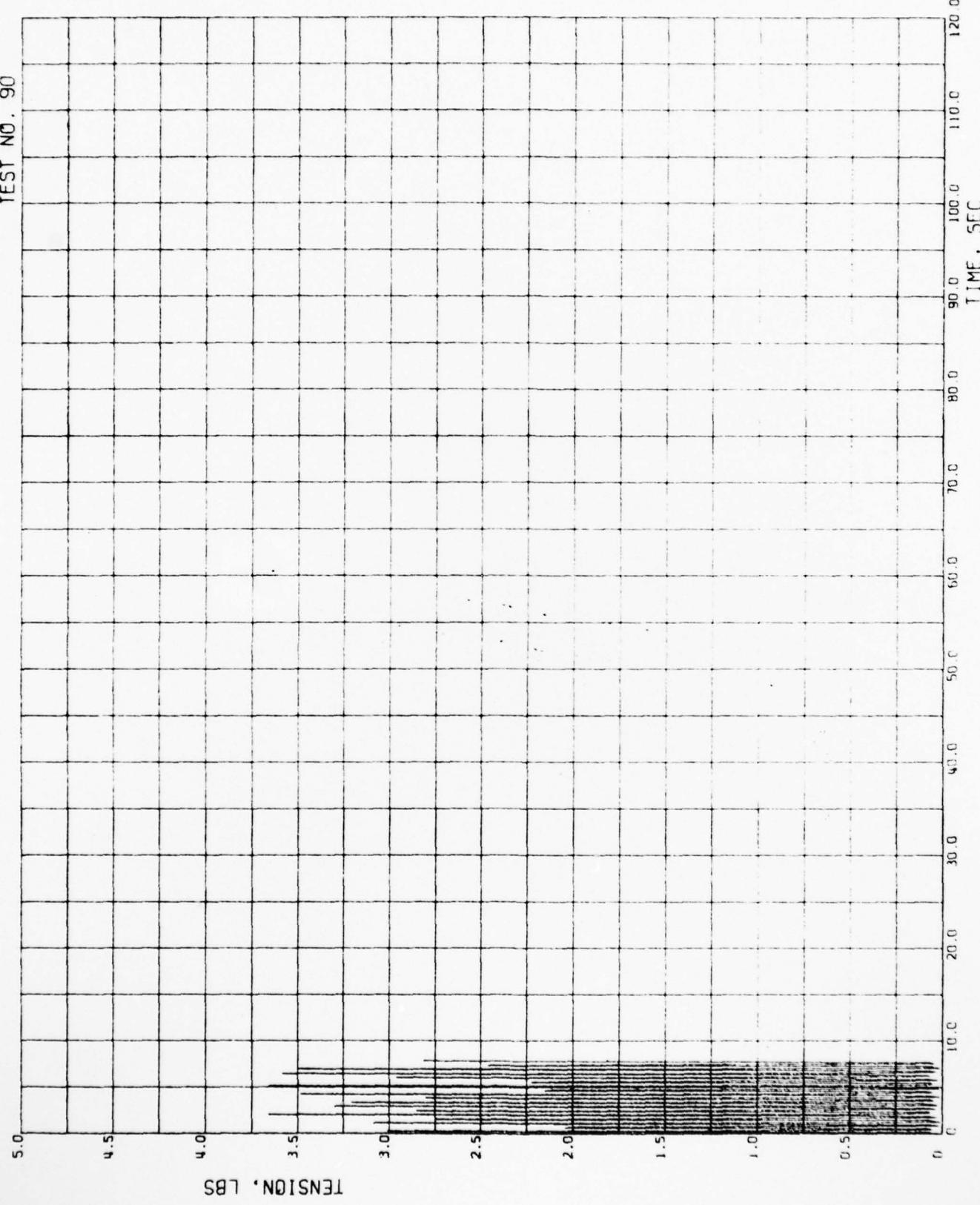
TEST NO. 88



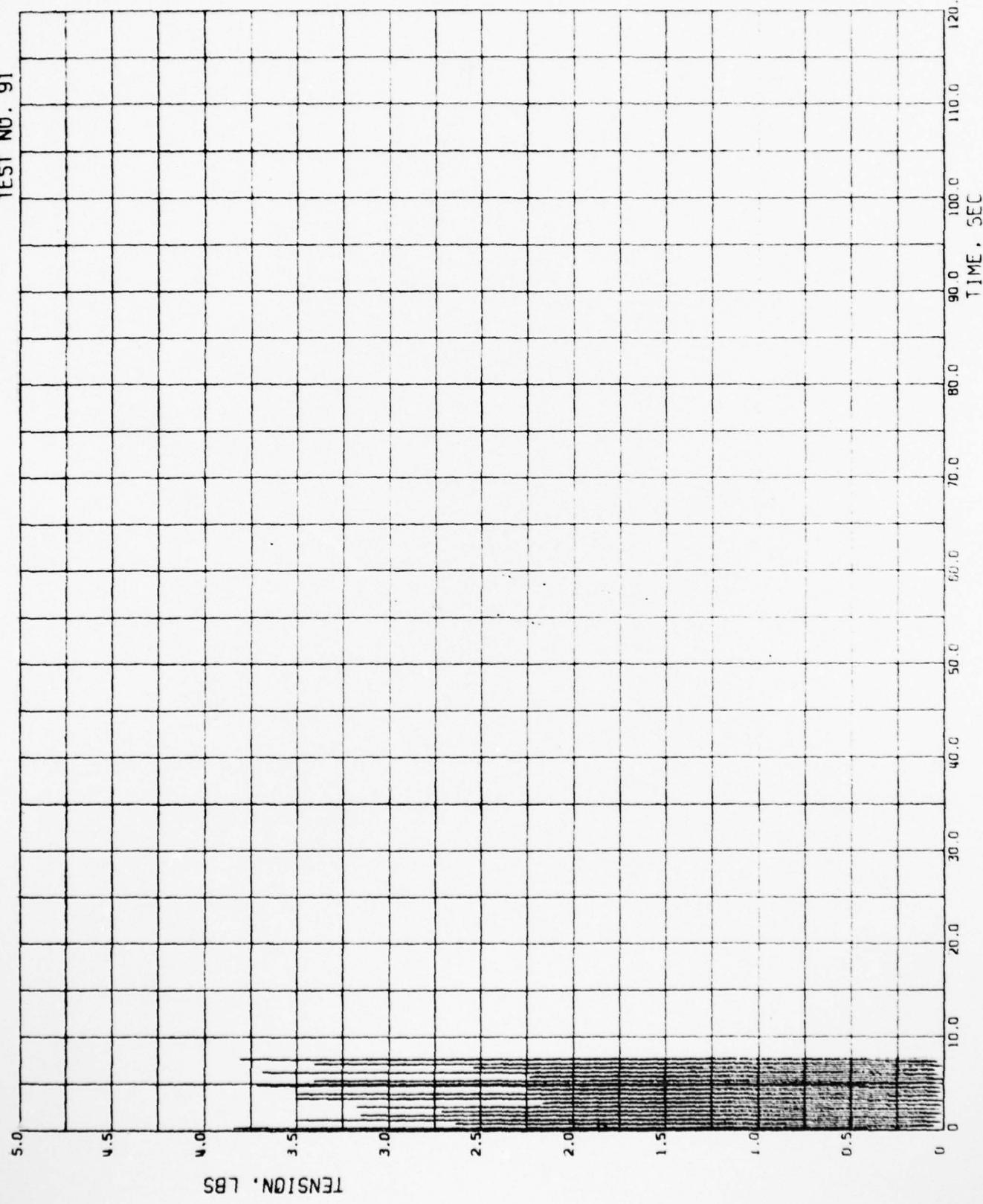
TEST NO. 89



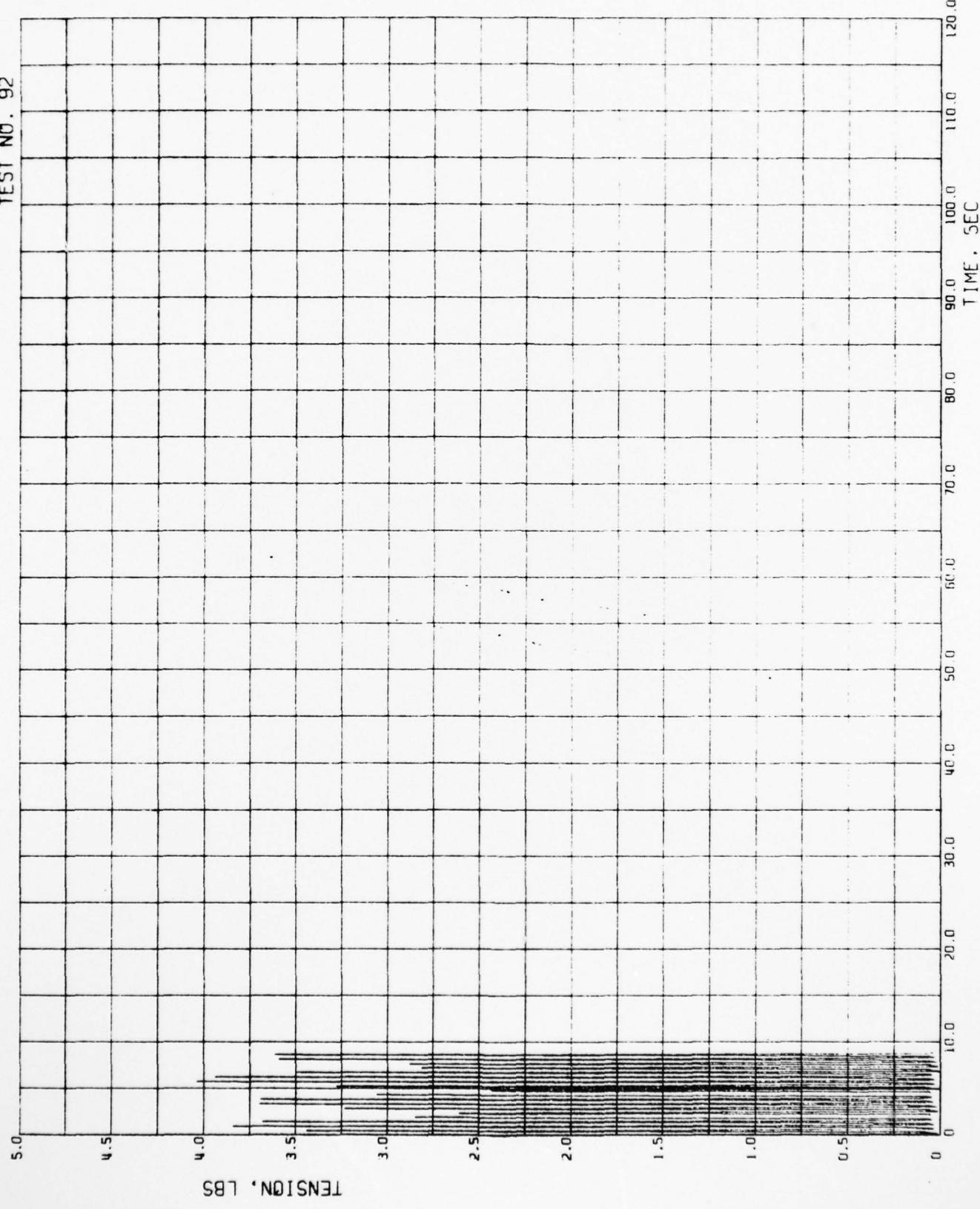
TEST NO. 90



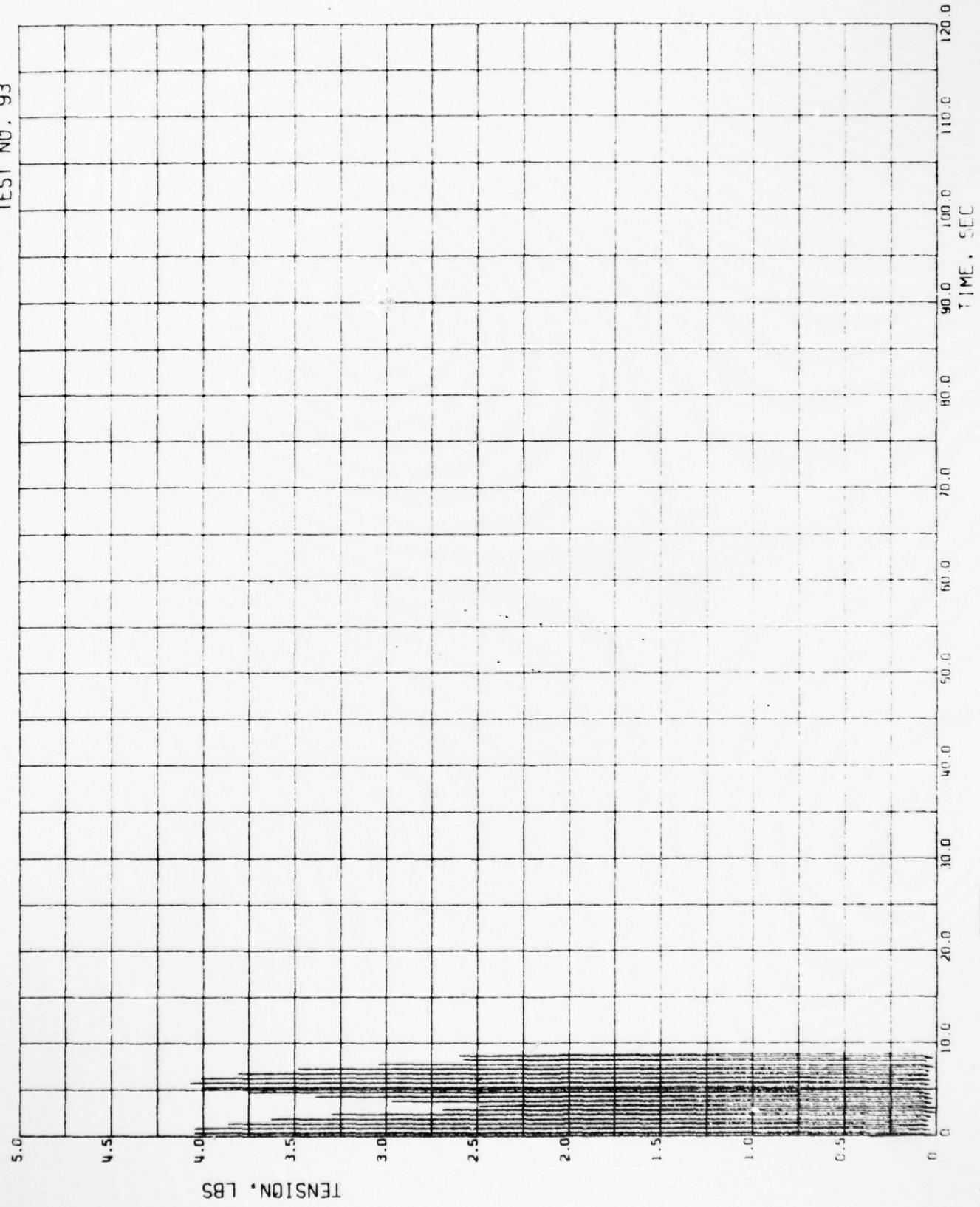
TEST NO. 91



TEST NO. 92



TEST NO. 93



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EXPERIMENTAL STUDY OF THE DYNAMICS OF VARIABLE-LENGTH CABLE SYS--ETC(U)
APR 79 T M WARD N68305-76-C-0033
UNCLASSIFIED GALCIT-HSWT-1129-VOL-3 CEL-CR-79.009 NL

UNCLASSIFIED

GALCIT-HSWT-1129-VOL-3

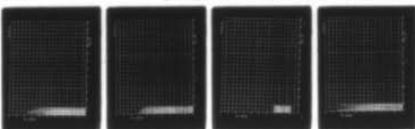
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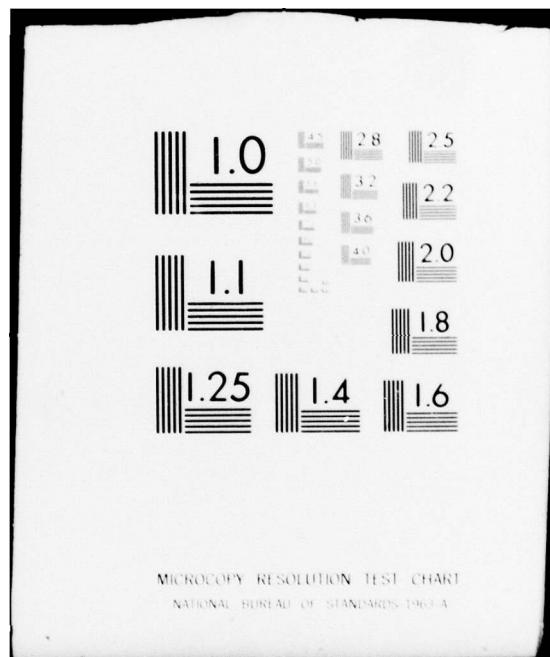
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2 OF 2

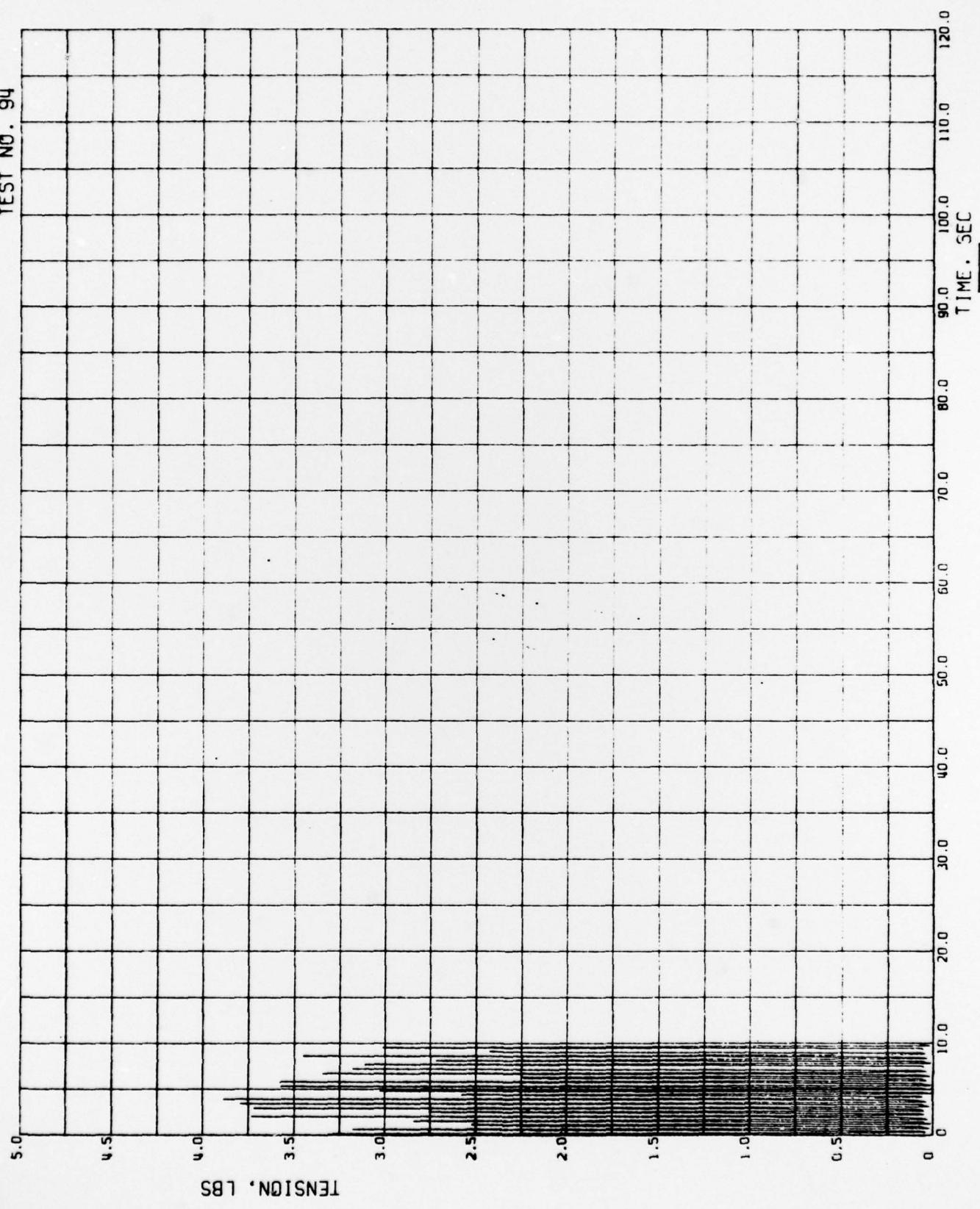
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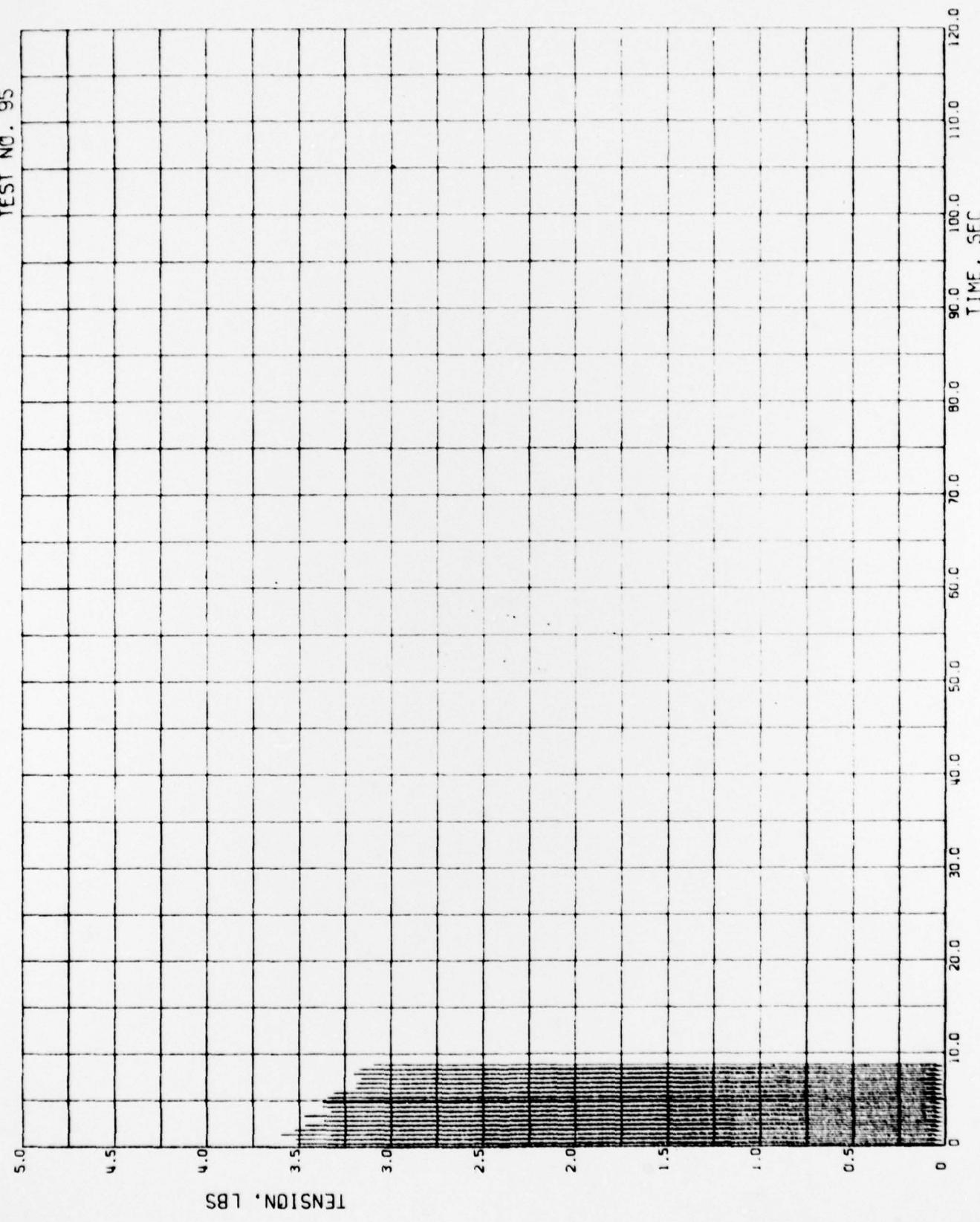
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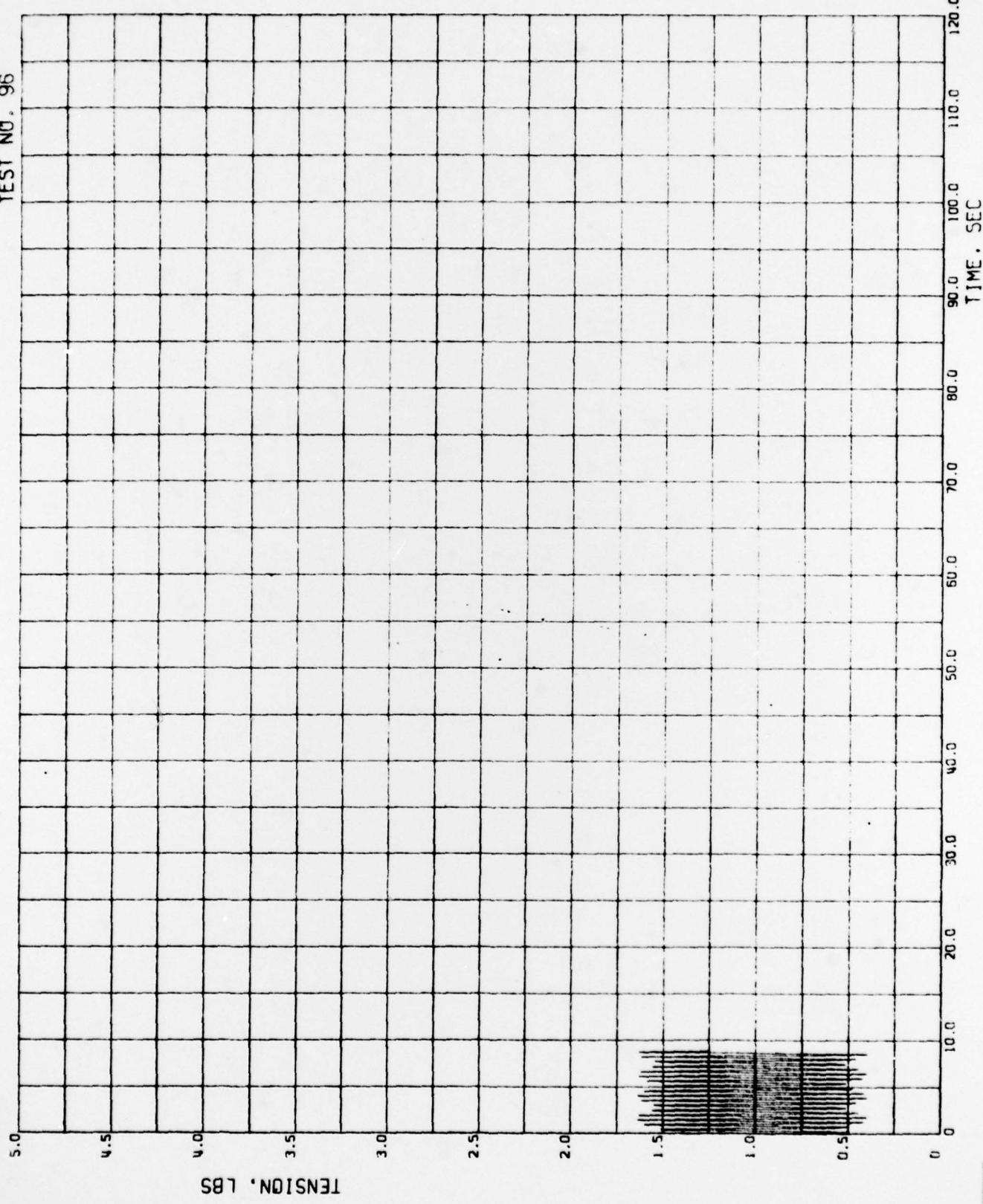
TEST NO. 94



TEST NO. 95



TEST NO. 96



TEST NO. 97

